

Oroville Alley Revitalization Program: Vision Plan and Preliminary Feasibility Study

(Miners Alley & Walking Loop and
Southside Alleys)



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Executive Summary

The City of Oroville features outstanding natural, recreational and historic locations. Downtown Oroville is one of these. Downtown Oroville contains 24 structures listed in the National Register of Historic Places. Sixteen are in the Old Oroville Commercial Downtown Historic District, also listed on the National Register. The 16 historic structures in the Historic District comprise the largest intact collection of historic commercial buildings from the 1850-1900 period. A number of these buildings back onto Miners Alley, which of itself is an important and unique historic resource that has been recognized as an important site since it was considered a “center of general rascality” during the Gold Rush. Conditions change, however, and in the latter half of the 20th century Downtown Oroville dimmed as a center of activity and commerce. The City has recognized this and has initiated planning to revitalize the area. In 2015 the City of Oroville also annexed the Southside residential neighborhood. This area was developed early in the 20th century, but has since suffered from inadequate maintenance, including its alleyways.

One of Oroville’s most outstanding features is its people. Oroville residents are proud of their city. While conducting this research, the project team met a number of residents who shared their stories about, and their pride in, their community and its history. Within this promising context, the City is seeking to implement cutting-edge, forward-thinking policies promoting community activity and vitality through new plans and programs including the 2013 *Oroville Arts, Culture and Entertainment District Report*; the 2015 *City of Oroville Design Guidelines*; the 2015 *Oroville Balanced Mode Transportation Plan*; and the 2011 *Lincoln and Huntoon Streets Restoration Plan*.

The students in the CSU Chico Department of Geography and Planning’s Site Planning (GEOG 428) and Environmental Impact Analysis (GEOG 427) classes are proud to contribute to Oroville’s urban revitalization. The team includes students from physical and human geography; environmental sciences; the geographic information (GIS) program; and recreation, social science, and engineering. Based on orientations to the project by City staff; site visits and fieldwork to evaluate Miners Alley, the Walking Loop, and the Southside area; a workshop with the Joint Arts and Park Commissions; and a hearing before the City Council, the project team proposes the following as the key components of the Oroville Alley Revitalization Program:

Recommendations: Community Involvement

Business: Focus on the business environment first. Enable businesses to adapt and evolve in order to be successful in the envisioned future.

Community Ownership and Involvement: Create an “Adopt-An-Alley” Program to enhance community pride, sense of ownership, and involvement. Invite community members and organizations, as well as invited artists, to participate in the revitalization effort.

Utilities and Services: Work with property owners and local service and utility companies when retrofitting alleys.

Advertising: Work with partners to advertise in higher-profile areas. Establish an online presence for alley activities.

Recommendations: Miners Alley and the Downtown Area

Innovation, Arts and Technology: Feature cutting-edge, innovative ideas, events and installations, including art, technology, murals, architectural projections, lightweight hangings, music, movies, and film festivals using multiple Downtown venues. Integrate them into the larger Downtown and change them regularly. Update the aesthetic of Miners Alley to an “industrial-historic” image. Enable Wi-Fi connectivity during use hours. Restaurants, cafes, and other businesses can be expected to provide connectivity on their own premises.

Pedestrian and Vehicular Use: Keep Miners Alley pedestrian-only (with vehicular access restricted to pedestrians and services), but ensure that there are safe, bike-friendly facilities and connections nearby. Protect pedestrians and seating areas in the alley from the vehicular travel-way using bollards or other physical features. Temporarily close alleys to traffic during special events with decorative, pedestrian-accessible gates. Lower posted speeds on Lincoln and Huntoon to 25 mph, similar to other Downtown streets. Provide safe mid-block crossings with in-pavement lights or other enhanced safety features. Continue to implement the City’s ADA Transition Plan, including in Miners Alley and the Walking Loop.

Ambience: Visually connect Miners Alley to Downtown streets and celebrate the alley’s entrances to draw people in. Add festive lighting to attract attention, create ambience and add safety. Create a sense of special character by installing distinctive pavement elements that continue through the street crossings. Keep the alley clean, attractive

and odor-free by consolidating and locking waste receptacles (including lids and doors). Construct waste storage areas of sturdy materials such as split block. Consider alternatives to waste storage in Miners Alley, or programs such as the Seattle's Clear Alleys program. Design waste receptacles to visually fit into the alley. Design for ongoing use despite seasonal variation by offering shade in summer and rain protection/patio heaters in winter. Feature different visual themes in different areas of Miners Alley.

Historic Resources: Ensure that participating businesses and organizations are aware of historic alley walls and features that should not be altered. Restore historic windows and doors opening onto the alley from adjacent restaurants and cafes. Allow murals to be painted on non-historic walls only. For historic walls, consider alternatives to wall murals including canvas murals, architectural projections, lightweight hangings, or ground-mounted installations.

Infrastructure: Evaluate opportunities to update Miners Alley infrastructure when upgrading paving in Miners Alley.

Recommendations: Miners Alley Walking Loop

Crossing Improvements: Install sidewalk bulb-outs and crosswalks to make walking safer and more inviting.

Way Finding: Use attractive techniques to enable way finding, such as inset tiles or plaques, pavement striping, or thematic container plantings.

Recommendations: Southside Alleys

Design: Focus seating and other features of interest near the ends of the alleys to ensure better visibility. Install low-level lighting when greening Southside alleys to enhance safety and attractiveness. Plant native plants and species to attract native birds and insects and create urban habitats. Evaluate the site-specific feasibility of installing bioswales to improve drainage.

Alley Identity, Activities and Sense of Ownership: Promote community interest and a sense of ownership by creating an alley-naming program and installing signage describing plantings, urban habitats, or other alley features.

Infrastructure: Grade and retrofit Southside alleys as funding becomes available. Concurrently evaluate and correct storm drainage intakes.

Myers Alley: Consider gravel base or interlocking pavers. Install a map or other bicycle system way-finding to show routes to other areas.

Mesa-Ontario Alley: Focus seating and other features at the ends of the alley to ensure visibility. Explore the opportunity to convert the two adjacent vacant lots into playgrounds or pocket parks.

The Larger Lesson: Continue to Create a Diverse, Inclusive, People-Friendly City

Continue to create a people-friendly city. Celebrate Downtown Oroville's unique setting and connect it to the rest of the City. Make the Feather River waterfront a major focus of activities and recreation. Bring in more students and residents to create a diverse and vibrant, 24-hour Downtown. Continue to refine and expand the City's pedestrian-friendly features. Create a fine city for cycling. Create more invitations to the City and its activities with more widespread advertising and an enhanced online presence.

Chapter 1: Introduction

1.1 What is Alley Revitalization?

The word *alley* is thought to be more than 600 years old, owing its origin to the French *allee*, meaning “walking or passage.” The *Merriam-Webster Dictionary* defines *revitalization* as “imparting new life or vigor to” or “restoring to an active or fresh condition.” Together, these terms refer to the restoration of existing urban alleys as walkways and passages in order to impart new life, economic vigor, and healthful activity to the surrounding community. As discussed in **Chapter 2, Model Alley Programs**, alley revitalization programs are being implemented successfully in communities around the world, including Detroit, Seattle, Chicago, San Francisco, Baltimore, Los Angeles, and many smaller urban areas in the United States; as well as more distant locales such as Perth and Melbourne, Australia.

1.2 Purpose and Goals

The City of Oroville seeks to clean up and revitalize its alleys in the Downtown and Southside areas, in order to reduce public nuisances in these areas and provide community benefits including enhanced economic vitality, reductions in crime and improvements in public health and safety. The City also wishes to update and enhance the historic Downtown’s public image, which has for years been identified almost exclusively with its gold mining history. As one resident puts it, the vision is to “make the city more ‘now-friendly’.”

The City’s Alley Revitalization Program is focused on two areas: Miners Alley and a connected Walking Loop that will extend into the surrounding streets in the Downtown area, and alleys in the Southside residential neighborhood (Figure 1.1). The City is seeking to implement cutting-edge, forward-thinking policies promoting community activity and vitality through new plans and programs including the 2013 *Oroville Arts, Culture and Entertainment District Report*; the 2015 *City of Oroville Design Guidelines*; the 2015 *Oroville Balanced Mode Transportation Plan*; and the 2011 *Lincoln and Huntoon Streets Restoration Plan*. The Oroville Alleys Revitalization Program has an initial focus on promoting activity in Miners Alley in order to jumpstart revitalization in the Downtown area. The City currently has about \$50,000 available for a Miners Alley pilot project.

Miners Alley Revitalization

Revitalization of Miners Alley will clean up and enhance an existing, historic alley extending for six blocks east-west through the heart of historic Downtown Oroville. Enhancements will continue along a walking loop which will extend along the entirety of Miners Alley, continuing west on Bird Street, south on 1st Avenue, east on Robinson Street, and north on Downer Street, connecting back to the east end of Miners Alley (Figure 1.2). The walking loop fronts on a

number of other historic properties and residences, including the historic Ehmann House and the 50-unit PEP senior housing development, and is approximately 1.1 miles in length.

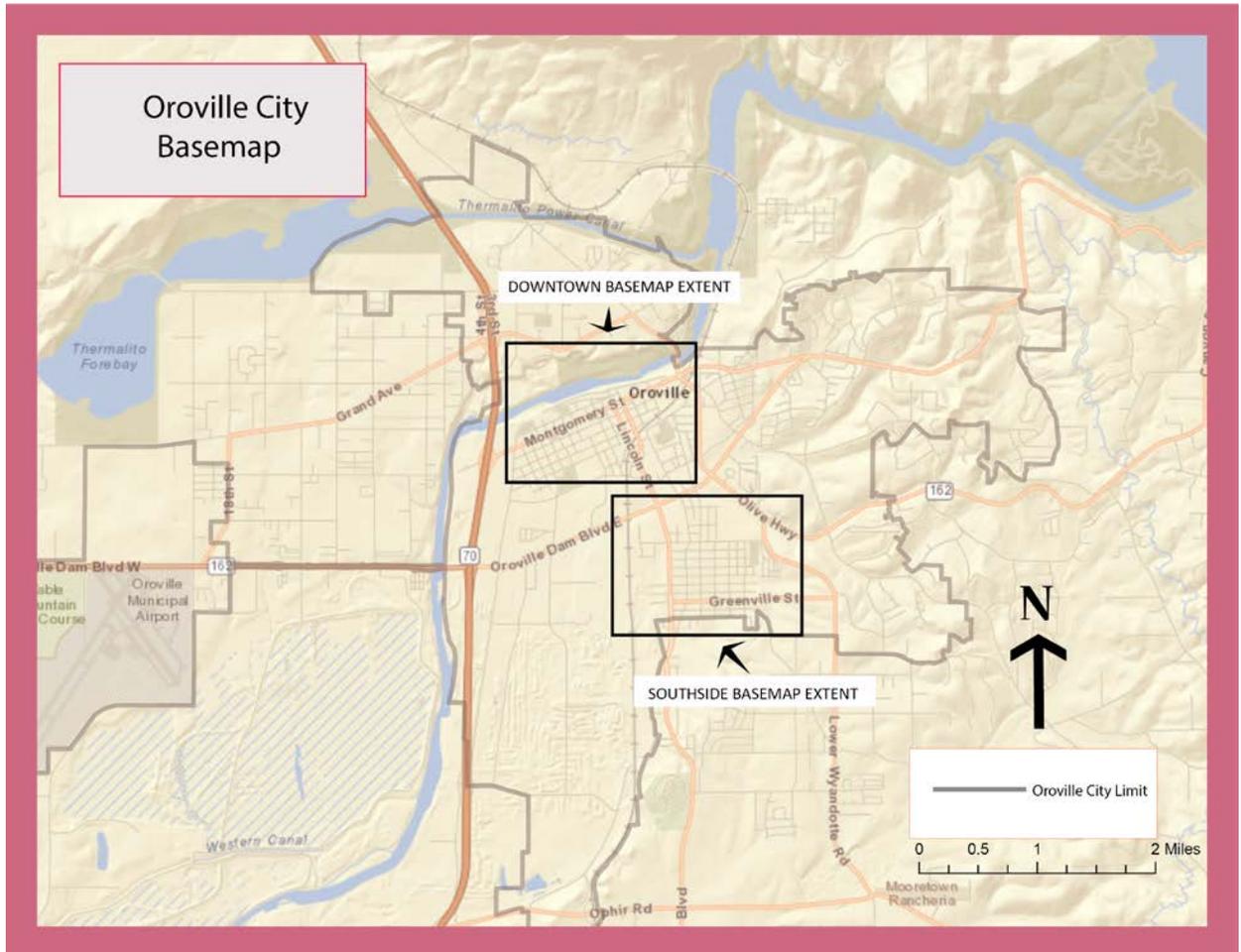


Figure 1.1: Alley Revitalization Program – Vicinity Map



Figure 1.2: Downtown Oroville and Miners Alley Walking Loop

Given its Downtown context close to so many residences, the Miners Alley Loop offers an outstanding opportunity for recreational walking and daily exercise, and to contribute to enhanced community physical activity and improved public health. Potential economic uses of the revitalized Miners Alley and walking loop include future restaurant and event use, as well as existing community events such as the Downtown Farmer’s Markets, which are currently held on Wednesday evening and Saturday mornings; Feather Fiesta Days, a springtime event featuring a parade, raft fair, and car show; the Salmon Festival, a September event celebrating the annual return of Chinook salmon to the Feather River; and periodic Artwalks. Miners Alley could also be used for the Downtown Business Association First Friday events, during which Myers Street and Bird Street are closed the first Friday evening of every month.

Specific objectives for the revitalization of Miners Alley and the development of the Walking Loop include:

- General cleanup
- Creation of an attractive, inviting setting, as a way to draw people in

-
- Use of the alley for community events
 - Restaurant patio seating
 - Use of existing walk-up windows, or addition of new walk-up windows for abutting businesses
 - Retail sales kiosks and food carts
 - Stamped, patterned, or cobbled re-paving to facilitate pedestrian use
 - Continuing to allow resident, service and emergency vehicle access
 - Creating safer street crossings between alley openings
 - Incorporation of Miners Alley into a clearly identified 1.1-mile walking loop
 - Identification of PEP Housing Project and other key sites along the Walking Loop
 - Addition of art murals and potentially other arts and cultural features in Miners Alley
 - Lamp-posts, lighting, and greenery throughout Miners Alley
 - Retention of garbage removal services while providing secure and attractive waste enclosures
 - Preservation of vehicular access for residents, businesses and services along Miners Alley while limiting access to others during special events or other uses

Southside Alleys Revitalization

The Southside neighborhood is a 1920's-era residential subdivision located south of Oro Dam Boulevard, east of Lincoln Boulevard, and west of Olive Highway (Figure 1.3). Houses in this neighborhood face the streets and back onto the alleys; however, no parking or services are accessed via the unpaved alleys, which instead contain underground sanitary sewer facilities. The Southside alleys are publicly owned and maintained; however, the amount of funding available for maintenance has been unable to keep up with the extensive maintenance needs including cleanup of weeds and dumping, as well as poor stormwater drainage. Alleys in Southside have thus become locations for dumping, crime, and other public nuisances.



Figure 1.3: Southside Alleys

The City of Oroville wants to clean up and improve the Southside alleys as a proven way to reduce crime and improve health for neighboring residents. Revitalized Southside alleys could also provide safe, off-street pedestrian and bicycle routes and places for children to play near home but out of street traffic. Although the Southside alley revitalization component is intended to ultimately encompass all Southside alleys, the City has selected two alley segments as potential pilot projects. These segments are Myers Alley, immediately behind and west of the commercial block at the Myers and Wyandotte intersection; and an unnamed alley running north-south between Mesa Avenue and Ontario Street one-half block east of Spencer Avenue (Figure 1.3). Goals for Myers Alley include beautifying the alley and maintaining it as a community amenity that serves both the adjoining residential and commercial uses. Goals for the Mesa Avenue Alley include establishing and maintaining this alley as a pathway for children to walk and bicycle to school or play in after school.

Specific goals of Southside alley revitalization program include:

-
- Removing trash and other debris
 - Beautifying the alleys
 - Grading and retrofitting to manage storm water while providing pedestrian, bicycle, and service access
 - Installing lighting that is compatible with the location
 - Providing pedestrian and bicycle access that is separated from streets
 - Creating community amenities through improved function, plantings, seating where appropriate, and maintenance

1.3 Organization of the Report

This report is comprised of six chapters. **Chapter 1 Introduction** clarifies what is meant by alley revitalization, outlines the purpose and goals of Oroville’s alley revitalization program, and provides background information. **Chapter 2 Model Alley Programs** describes successful alley revitalization and alley greening programs around the world that can serve as models and inspirations for the Oroville alley revitalization program. **Chapter 3 Site Inventory and Analysis** reviews and evaluates the site-specific characteristics of the Oroville Downtown and Southside areas, and any constraints or opportunities they may pose for the alley program. **Chapter 4 Best Practices and Strategies** compiles ideas, inspirations and opportunities identified in the previous two chapters. **Chapter 5 Proposed Program** outlines permitting needs, potential partners, and concepts for design and connectivity, as well as updated to zoning, general cost estimates, and potential funding sources. Last, **Chapter 6 Phasing Concept** identifies the key short- and long-term actions necessary to implement the alley revitalization program.

1.4 Revitalization Program History and Background

Historic Miners Alley is perhaps one of the most colorful thoroughfares in Western history. Oroville was established at the head of the Feather River to serve miners during the Gold Rush. After discovery of gold at Bidwell’s Bar, thousands of prospectors flocked to the area. According to contemporary accounts, during the 19th century the streets of Oroville were like those of a great city, crowded night and day. Hotels and saloons lining Montgomery Street had basement-level dance halls and lobbies with doors opening onto Miners Alley as well as onto Montgomery Street. As a result, the alley was a busy social setting during this period and was known as a hub of high living and “general rascality” through the latter half of the 19th through the early 20th century. The Old Oroville Commercial Downtown Historic District, including portions of Montgomery, Myers and Huntoon Streets and Miners Alley, is now listed on the National Register of Historic Places. The 16 historic buildings in the district comprise the largest remaining concentration of commercial buildings dating from 1856-1912 period.



Some accounts say Oroville had as many as 100 saloons during the Gold Rush era. The most famous was Harry Hunt's Bank Exchange in the basement of the Washington Block on the corner of Myers and Montgomery streets. It operated for over 50 years, and the ghostly rooms survive to this day.

Basement "Bank Exchange" Saloon in the Washington Block Building, Myers and Montgomery Intersection

(Source: J. Lenhoff, Images of America)

Oroville's Downtown continued to be an active and vital commercial and social hub through the mid-20th century. Today's residents recall constant bustle and a wide spectrum of economic activity in Downtown Oroville during the 1960s when Oroville Dam was being built, including retail, professional services, and government. During the late 20th century the Downtown's fortunes changed, and although Oroville remained the county seat, the Downtown area lost a number of key businesses. More recently, a small group of dedicated residents, businesses, and investors have begun to restore Downtown properties, often in partnership with the City, including the Oroville Inn, the Miners Alley Brewing property, and the Gray Nurse (former Studebaker Carriage) building.



Twentieth-Century Miners Alley Views:

1965 (left – Scruggs and Meador Building, 1933 Montgomery Street) and

1979 (right – Gray Nurse Hardware Building, 1359 Huntoon Street) (Source: National Register of Historic Places)

Among the historic restoration projects currently underway adjacent to Miners Alley, the largest is the restoration of the 1920s-era Oroville Inn for use as housing for the Northwest Lineman College. The restored Inn will house approximately 120 college students on a three-term schedule. Because the dormitory facility will not offer a full line of food services, the students are expected to support restaurants, grocery sales, and eating establishments in the Downtown area. The Miners Alley Brewing Company at 2053 Montgomery Street has also recently purchased the adjoining lot at the Myers and Montgomery intersection from the City, to be used as an outdoor patio area for expanded dining service. The Gray Nurse Building, formerly in use as the Studebaker Carriage Company, has been restored as a mixed-use residence and event space. The event space's historic iron doors open onto Miners Alley during community activities and other events, and could be used to provide access or dining services in the alley. A key revitalization project in Downtown Oroville has been the 50-unit, age-restricted PEP Housing development at 1511 Robinson Street. The Miners Alley Walking Loop will pass directly in front of this site, as well as the historic Ehmann Home and several other historic properties. Several vacant or underutilized lots in the Downtown area are zoned to support mixed commercial and residential use in order to enhance the future livability and the commercial vitality of the area.

Information Sources

Lenhoff, J. 2001. *Images of America: Oroville, CA*. 2001. Arcadia Publishing: Charleston, South Carolina.

Chapter 2: Model Alley Programs

2.1 Commercial Alley Revitalization Programs

2.1.1 Downtown Alleys (Fort Collins, Colorado)



Fort Collins Downtown Alley (Source: <http://www.russellmillsstudios.com/project/old-fire-house-alley-fort-collins.html>)

In 2004 Fort Collins, Colorado, through the city’s *Fort Collins Downtown Strategic Plan*, identified alleys in their downtown area as “an untapped opportunity for enhanced pedestrian connections.” Fort Collins has an old town square, a river district, and Colorado State located near the city’s downtown section. The city decided to renovate and redesign the alleys connecting these destinations. Some of their program principles and design philosophies may be useful in our task of redesigning and renovating Oroville’s alleys. The following information is included in the *Fort Collins Downtown Alleys Master Plan Report*.

- Diane Finley is president of the Trimble Court Artisans Coop, located near the Old Town Square. In the *Master Plan Report* she states, “Since 2005 our sales have increased 60 percent, no doubt in great part due to the alleyway enhancements.” This indicates that Oroville can be enhanced economically through Downtown alley renovation.
- The Goals and Objectives section of the *Master Plan Report* offers some useful strategies like developing retail/commercial entrances, and using some of the alley’s outdoor spaces for cafe seating, courtyards, plazas

and private nooks. The section also suggests using festive lighting, art, special paving and a variety of types of planting, and to design the alley with a unique theme responding to respective zones. These can be applied to Oroville, especially Miners Alley.

- The *Master Plan Report* recommends shared trash/recycling stations.
- Emphasizing retail connections was also recommended in the report and should be applied to both Miners Alley and Myers Alley.
- The figure below highlights features such as attached murals and string lighting, which could be incorporated into Miners Alley.



Fort Collins Downtown Alley (Source <http://fineartamerica.com/profiles/david-thrush.html>)

Summary

The Fort Collins Downtown Alleys project is inspirational. Key ideas/inspirations gathered from the Fort Collins Downtown Alleys project include:

- Developing retail/commercial entrances
- Use of the alleys outdoor spaces for café seating, plazas, and private nooks.
- Use of festive lighting, art, special paving, and a variety of types of planting
- Design the alley with a unique theme responding to respective zones.
- Use of shared trash/recycling stations
- Emphasizing retail connections

Information Sources

www.downtownfortcollins.org/alleys.html

Fort Collins Downtown Alleys Master Plan Report

<http://www.russellmillsstudios.com/project/old-fire-house-alley-fort-collins.html>

<http://fineartamerica.com/profiles/david-thrush.html>

2.1.2 Perth Laneways (Perth, Australia)

“Laneways are unique in that they offer the opportunity for human-scale experiences. They provide us with an intimacy not generally found amongst the skyscrapers. Small dimensions are more social, have a better microclimate, provide comfort and protection. Small spaces cocoon us from the wide busy streets of the city.”

- Rob Adam, Director of Design and Culture, City of Melbourne

Perth, Australia has, as many other cities have, started a program to revitalize their alleyways (or laneways, as they are called in Australia). In August 2007, Perth performed an analysis of their alleyways in their central core district. In the previous years Perth underwent economic and social growth along with a demand for more economic space. This is a similarity that Oroville may find itself facing in the coming years, and some of the techniques adopted by Perth may be useful to the City of Oroville as well.

A main issue that Oroville is facing is one that Perth faced as well: attracting people into the city after hours. In Perth, many people who worked in this district simply went home around 6 pm. This also caused visitors to leave as well. While alleyways may often seem undesirable locations, they also have prime locations. Location, combined with the intimacy of an alleyway, creates an ideal spot for some cafes or bars. Perhaps a business that is a cafe during the day but turns into a bar at night, creating an almost 24-hour business.

In 2001 Perth chose Wolf Lane as an area to case study for potential redevelopment. They followed alleyway projects similar to those in Melbourne and London. Their goals for Wolf Lane were to visually improve the lane and promote interest in economic development. Visual redevelopment was successful, but there was a lack in economic development and the alleyway is sparsely occupied. Perth points out that while there is an importance in the visual aspect of an alley, emphasis on the project should focus on encouraging and supporting business development.



“Apart from the physical qualities, the public realm can further be enhanced by variety - not only visual but also variety in terms of experience and scale. Laneways have the potential to contribute greatly to the public realm.”

- Rob Adams

Suggestions for Revitalizing Alleyways

- Design initiatives to attract and retain people and businesses in alleyways (e.g. small bars, Wi-fi hotspots);
- Create strong and active partnerships with local businesses, property owners and community organizations (e.g. arts groups, schools and churches);
- Support events including social and artistic activities (e.g. festivals and art installations);
- Value and support entrepreneurship and innovation (e.g. small business grants);
- Restore existing built form edges (e.g. eliminating blank walls);
- Establish guidelines to protect the fine grain of the city.



Over time Perth has experienced a lot of changes. The city used to be nicknamed “Dullsville”, but with a lot of work it climbed to a 2015 global livability ranking of 8th place as rated by *The Economist* magazine.

2.1.3 Melbourne Laneways (Melbourne, Australia)

Melbourne is a unique place for all types of tourism. There are various districts within the Downtown region. This city is made up of 109 laneways which each have their own style. Some of the most popular lanes consist of the Hosier Lane; where there are hip urban art displays in showcases. The main middle area, Centre Place is packed with bars, restaurants and cafes, and the graffiti along its length features on promotional campaigns for the city. Another artistic laneway, Cocker Alley is full of artwork both local and graffiti. The ethnic side of the city is located on Liverpool Street, which is lined with Asian eateries and Italian restaurants. And of course, Chinatown is on the main strip of

Little Bourke Street. If the nightlife is for you, you can head towards Meyers Place. This hub has everything from stylish cocktail bars to a 1920s-style speakeasy. Or seek out the well-concealed nightlife secrets of Croft Alley, Sniders Lane, Presgrave Place, Goldie Place and Warburton Lane.

Like Miners Alley, the laneways in Melbourne were once a miner's dream, which then turned into empty, faceless blocks of Downtown. In the 1990s the lanes were revitalized after the renewal of urbanism. The city became interested in restoring the lanes and starting up new businesses coordinated to promote growth. Renowned urban planner and Melbourne's Urban Design Manager Jan Gehl first visited the city back in the 70s and became inspired by its cultural potential. Now, due to Gehl's work with Melbourne and collaborating architect/director Rob Adams, the city was recognized by *The Economist* magazine as the top-ranked livable city in 2015. One way its alley revitalization was accomplished was through lowering the cost for alcohol licenses. Soon after, all different kinds of businesses opened up.



Degraives Lane, Melbourne, Australia

Degraives Lane (image above) is a popular interconnection with Centre Place. What works well in this space is that there is varied seating along the walls and restaurants. The restaurants open up to the public and face the laneway. Above there is hanging signage that doesn't take up much space and allows for marketing. The clean cobble pathway allows for an easy walkthrough. There is also wall space for art or posters to be seen.



McKillop Street, Melbourne, Australia

McKillop Street is a cobblestone historical lane. There are posts along the edge, acting as a barrier for vehicles so that they don't hit pedestrians. The trees allow for shade and greenery. On the right hand side of the image, there is a bench and seating area, which resemble a parklet.

In the image on the left below, the arching lights would add value to the Miners Alley. The image shows raised curbs along the edges, where there is seating placed and a distinct walkway through the middle of the lane. If the alley could not only bring art to the eye level but to higher ground this would allow for more space throughout the alley.



Alley Arch Lighting, Seating and Walkway (left); Dumpsters Integrated into Alley Aesthetic (right)

Ideas and Inspirations from Melbourne Laneways

-
- Use of arched, overhead lighting
 - Graffiti as an artistic aesthetic, in order to discourage graffiti elsewhere
 - Bollards to protect pedestrians from vehicles
 - Selecting areas within Miners Alley to have different or dispersed themes. For example, one section can be dedicated to a miner theme while another has a social seating area with artwork displays.

2.1.4 Belden Place (San Francisco, California)

Belden Alley, better known as Belden Place, is an alley in the Financial District and French Quarter of San Francisco. It is a one-lane, one block long street that runs north and south between Pine Street and Bush Street, and is set parallel to and in between Montgomery and Kearny streets, directly south of the Bank of America tower. According to Wikipedia, “in 1990, restaurateurs Olivier Azancot and Eric Klein opened *Cafe Bastille*, the mainstay that set the modern tone for the area. The French, Italian, and Catalan establishments are popular with locals, tourists, and office workers, and are generally considered on par with the city's best casual full-service European restaurants. Also nearby are the Alliance Française, the French consulate, and the Notre-Dames-Des-Victoires Church (where mass is still celebrated in French). Due to cold weather and lack of available locations, no other neighborhood in San Francisco has a comparable street dining scene. The lane is closed to vehicular traffic and filled for lunch and dinner with portable chairs, tables, umbrellas, and outdoor heaters. At night the lively street is lit with candles, Christmas lights strung overhead, and light spilling out from the restaurant interiors. Restaurants send attractive hostesses out into the street to lure potential diners. Every year, the area is the site of a boisterous Bastille Day celebration, the nation's largest, and Bush Street is temporarily renamed *Buisson*.”

Belden Place is clearly focused on the dining portion of alley use and it does it very well. Aesthetically, it is a very welcoming and desirable location to spend one's time for a meal or a festival such as the Bastille Day celebration. The main idea that we can draw from Belden Place for the project in Downtown Oroville is the prospect of incorporating the nearby shops and restaurants into the use of Miners Alley. If we create a welcoming and attractive environment for outdoor dining, then not only will the alley be used for more than originally planned, but the local economy will prosper as well due to more incoming funds into the local restaurants and shops. Some ways that we could accomplish this in the same vein as Belden Place would be to coordinate with the local restaurants and shops in the hopes of them opening up their businesses to Miners Alley so that tourists and other potential customers could visit their places of business while exploring Miners Alley. Belden Place has a very simple yet pleasant aesthetic in that it has a European café/bistro feel all along the extent of it, with overhanging strung lights for nighttime to continue drawing in customers even after the sun has gone down. If Oroville incorporated that same idea to where people would want to congregate in Miners Alley in the nighttime, then that would allow for many more hours of operation that the shops and restaurants could bring in money and continue to advertise Miners Alley. Another goal to keep in mind for this approach is cleanliness; if people are to be drawn in and expected to stay for food or other activities, then the alley would need to be kept clean and free of any unsettling items like dumpsters, loose trash, or unattractive pieces of equipment. If Oroville is able to incorporate local business while maintaining top-tier aesthetics, then Miners Alley is a very promising location for locals and tourists alike.



Belden Place Gate



Belden Place at night, before nighttime rush



Chronicle / Michael Macor

Belden Place with nighttime customers

2.1.5 Greeley Art Alley (Greeley, Colorado)

Greeley, Colorado has taken on the project of revitalizing and drawing attention to the alleys throughout the downtown area. The alley between 8th Street and 9th Street in Downtown Greeley has been the particular subject of focus. Residents of the city have nicknamed the alley “Art Alley” due to the two-year project that will result in the alley being covered in music-themed artwork. Greeley has a budget of \$50,000 allocated for their alley project.



Greeley Jazz Mural by Zach “Silve” Keiss

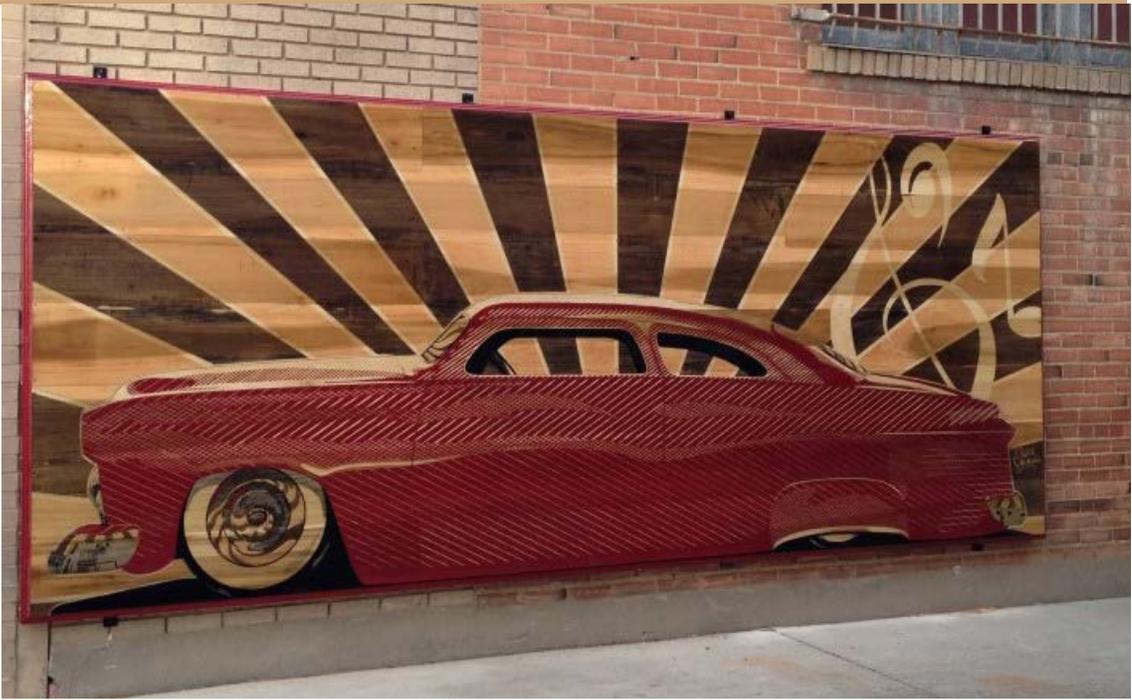
The goal of the Downtown Development Authority of Greeley and the Art Commission is to turn the alley into a creatively fueled art destination. Armando Silva is the lead artist and director of the project slated to wrap up in 2016. Armando stated, “It should pay respect to the old times but also move forward with the new times. The Downtown Development Authority conveyed that they want the project to serve as a destination concentrates what is found throughout the rest of the city and to further the feeling of an arts district. Music is the central theme as a reflection of the vibrant music scene in Greeley. Downtown Greeley is a hotspot for music festivals of all genres and in 2014 the Greeley Creative district was certified as an official Creative district by the Colorado Office of Economic Development and International Trade. The Union Colony Civic Center is one of the largest performing arts venues in Colorado and it is located in Downtown Greeley where it hosts the University of Northern Colorado music program, the Greeley Philharmonic Orchestra, and the Greeley Chorale along with Broadway musicals and other visiting artists.

The musical theme and the bright colors juxtaposed with the textures of the old buildings create the feel that Armando and the City of Greeley are looking for. Armando is a Greeley native and painted the first of the murals. Other local artists are encouraged to apply to participate in the program but all artists are welcomed. The city may include a sort of “paint-by-numbers” project in order to involve groups of community members. The artists are encouraged, by the Downtown Development Authority and the Art Commission to use every surface in the alley. Utility pipelines, doors, windows, and even the dumpsters are painted. The DDA contacted the utility and waste management companies prior to the start of the project to receive permission for the artists involved in the project to paint the items associated with the companies. The DDA indicated that many of the buildings are composed or partially composed of bricks that date back to the original construction of Greeley. The DDA has worked to identify those bricks and ensure that they are not painted on directly.



2014 Greeley Mural by Armando Silva

The alley is in close proximity to the University of Northern Colorado, so the directors of the project have sought to involve students as well as create a draw for them to the downtown area. Hanging festoon lights will be installed in the alley and in the walkways leading to the alley to create visibility and a more inviting, safe atmosphere in the evening hours. A system of arrows as well as other directional and informative signage will be put into place to draw in patrons from the near-by plazas.



Greeley Mural by Alex Carmona

Some of the other murals that color the buildings in the Downtown Greeley area are thematic of the history or function of the building itself. For example, the Adult Literacy Center features a quote about learning. Using the murals as a tool to designate the purpose or historical significance of the structure assists in creating a sense of place or a specific dynamic.



"Right to Read" Mural, Greeley

Greeley also has an “Adopt-a-Street” program in which the city provides safety vests and garbage bags to groups or individuals who will commit to picking up litter on a regular basis. The City of Greeley orchestrates removal of the bagged litter and credits the parties responsible for the removal by placing blue and white metal signs along the street with the group’s/ individual’s name(s).



“Adopt-A-Street” Plaque, Greeley

Inspiration Points for Oroville Alley Project

- Designate a theme that pays homage to Oroville’s past while celebrating what is new.
- Take measures to protect historically significant materials.
- Communicate with waste management and utility companies in order to obtain permission to paint, decorate, or change location of items associated with their services.
- Utilize local talent but be open to outside contributors.
- Involve the community as much as possible to foster a sense of pride and ownership
- Hang lights in alleys as well as walkways leading to alleys to improve perceived safety and make the space inviting.
- Use direction and informative signage to draw people into the alleys and educate.
- Create an “adopt-an-alley” program to increase community involvement and to keep area clean.

2.1.6 Los Angeles Art Alleys (Los Angeles, California)

The City of Los Angeles proper has just over 900 miles of backstreets. These backstreets, walking lanes, pedestrian passages, et cetera are all considered alley(way)s. While not all alleys are created equal, and each is in its own stage of life, all have the potential to be something greater, no matter how vintage or already grand. Scattered throughout commercial zones, neighborhoods, downtown, and industrial areas, most of these places have become blighted and are for the most part ignored, even though collectively they have a square footage twice the size of New York City's Central Park. The City of Los Angeles in partnership with The Trust for Public Land has been working with many organizations to transform LA's alleys into inviting, safe, enjoyable, and green community spaces. Just to name a few, some of the more notable programs have been sponsored or collaborated with the City's Community Redevelopment Agency, Bureau of Sanitation, the University of Southern California's Center for Sustainable Cities, local high schools, David Ostros , Gabba Art Gallery, and Dourone.

As of 2016, more than 75 locations have been improved. To repurpose their alleys into vibrant, outdoor neighborhood areas, LA has:

- Introduced light-colored paving to reduce its urban heat island effect
- Replaced or covered up dark-colored infrastructure materials with lighter ones to create cooler, more inviting atmospheres
- Implemented crosswalk lighting, striping, and signage to encourage pedestrian use
- Created public awareness to increase pedestrian and bicycle traffic and workability
- Planted drought tolerant and native floral species to help beautify and green resident's neighborhoods
- Arranged foundation for innovative techniques to capture, use, and infiltrate storm water from nearby streets and spaces
- Worked diligently on community-based design pilot projects for interactive alleyways
- Allowed local artists to paint hundreds of murals generating a sense of civic pride, ownership and responsibility, while beautifying the city.

The Importance of Visual Aesthetics

As human beings, we engage with objects mainly on a visual level. When we come across a new visual landscape, in an instant we subconsciously and consciously generate principles that we believe to be true about our surroundings. This is one of the biggest reasons that murals work so well to revitalize a place. Murals are big, murals are bold, they introduce color into their surrounding environment all the while showing that someone (or a group of "someones")

care enough about a location to spend time, money, and love on it. After all, is art not an expression of passion, with painting being a common form of art?

Just as an art gallery makes for a destination, so can an alley filled with murals. Alley art can also make a pedestrian's travel experience more enjoyable and go by fast, all the while serving as a place marker, making it harder for a person to get lost in transit. Los Angeles clearly recognizes this along with many other benefits and principles of public art in alleyways. Three of the most successful efforts have been the Gabba Art Alley Program, the Ostros Alley Initiative, and the Avalon Green Alley Project.



Animal Alley, Los Angeles (Photograph courtesy of Deborah Vankin of the Los Angeles Times)

Local artists Jules Muck and another other people lent a hand to work on murals in the Echo Park area of Los Angeles (above). This particular alley is called Animal Alley for obvious reasons as the paintings for this space have animal-centric themes. Resident Andrea Lahue was another painter who provided her talents (below).



Mural Painter Andrea Lahue (Photograph courtesy of Deborah Vankin on Instagram)

Social media has been hugely helpful in the promotion of public excitement in regards to alley art in LA. Even the most unpleasant features of an alley can be utilized and made intriguing, such as the dumpster below, found in the Gabba Arts District. Wall papered trash receptacles created by eco-activist Christine Finley can be seen beautifying Los Angeles (below).



Above, right and following: Gabba Arts District Dumpsters (Photographs courtesy of the Gabba Gallery)







Photos above courtesy of Finley Studios

Even international artists have joined the LA alley art scene. The Belgium born street artist known simply as ROA has spray painted many large backdrops within downtown. His art (middle right) usually can be distinguished as he mainly depicts small animals on a large scale.



However, not all wall paintings are new. The long-standing “green octopus” (bottom right) located in the Downtown arts district draws many tourists’ attention. Murals such as this one use colors found in the surrounding natural environment, making them blend in and almost seem as if a building or previously ugly wall does not exist. Dourone, another international muralist, has put up dozens of famous murals in LA such as a well-known one (following page) in an alley in Filipinotown.

The City of Los Angeles’ most recent efforts have been concentrated on green alley infrastructure. One of the more important pilot programs is the Avalon Green Alley Network Demonstration Project. Initially, this revitalization process revamped two alleyways in close proximity to each other in LA’s residential south side. Being successful, there are now a total of six Avalon alleys under improvements (following pages). A few of the major improvements are grading/leveling of the alley surface, permeable paving surfaces, places to lock bicycles, and plants and signage.

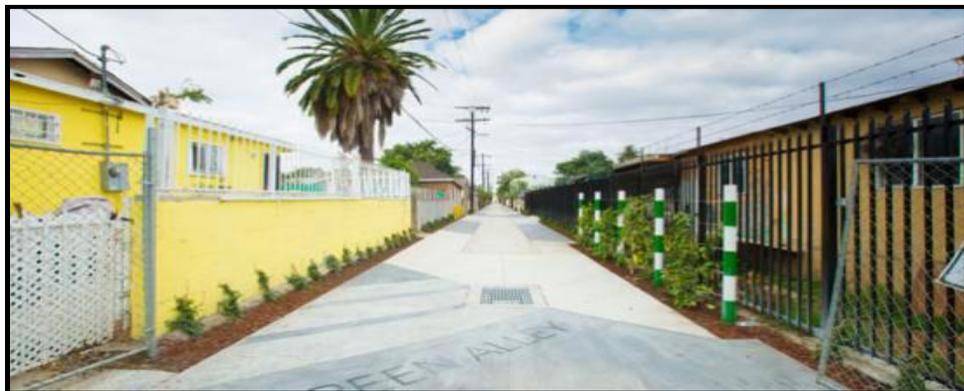
Mural by ROA (Photograph courtesy of FPR302)



"Green Octopus" Mural (Photograph Courtesy of Melissa Richardson)



Alley Mural by Dourone (Photograph Courtesy of Dourone Ilustración)



Avalon Green Alley Network Demonstration Project



Avalon Green Alley Network Demonstration Project

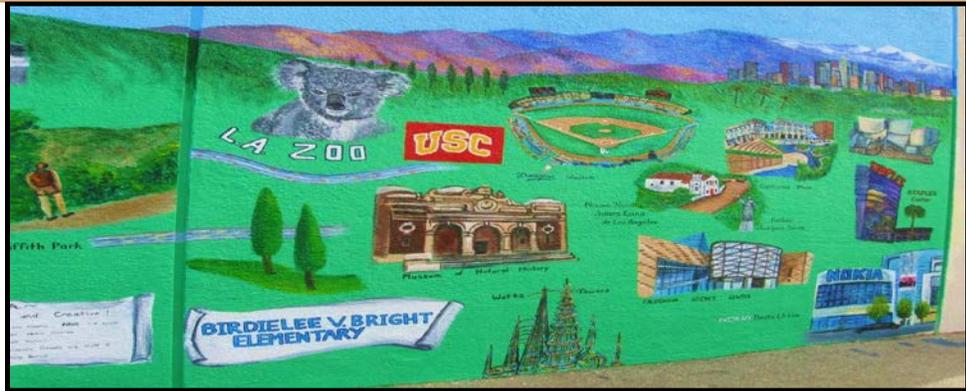


Avalon Green Alley Network Demonstration Project

Hundreds of other alley murals, paintings, and other aesthetics and infrastructure upgrades have been completed to create unique, profitable, and enjoyable pedestrian ways within the Los Angeles region. One just has to look (below) to find other fine examples of alley remodeling when investigating Los Angeles. As for the alleys that have yet to be improved upon, endless opportunities just need to be realized and seized.



Los Angeles Alley Art (Photo courtesy of Baha Danesh)



Los Angeles Alley Art (Photo provided by Los Angeles Board of Public Works)



Los Angeles Alley Art (Photo courtesy of Cindy Schwarzstein)

2.1.7 Annie Alley (San Francisco, California)

In November of 2014 San Francisco opened their latest public space, Annie Alley. Yerba Buena Community Benefit District, in collaboration with the Planning Department's Pavement to Parks Project and CMG Landscape Architecture, used a simplistic approach to activate this alley. The first thing they did was to bring in "temporary concrete," which serves as both a vehicular barrier as well as seating, although movable seating was also added. The concrete is contrasted with wood pillars, plants and lighting. Among the multistory buildings, the concrete seems to emphasize city-life, whereas the natural wood and living plants tend to warm the space.



Annie Alley Design Mockup

As a street-turned-plaza, Annie Alley has brought the Yerba Buena neighborhood to life by creating an inviting space for events such as music and festivals. The lighting appears to blend in well with the industrial accents of metal braces and hanging plants ((below). Even though the plants are a nice touch, it is unclear how much maintenance they require and how the city handles the water that must drain below.



Alley Turned Gathering Space (Source: Streetsblog SF)

According to the CMG Landscape Architecture website, the design has served a variety of programs, including “...eating and gathering, screenings, performances, lectures, and events (including impromptu), and vending kiosks, food trucks, and art. As a community resource, it also offers a community posting board and a neighborhood art program.”



Live Music, Annie Alley (Source: Streetsblog, SF)

Annie Alley is the kind of space we would like to see in Oroville. Using concrete to block traffic may not be as applicable in Miner’s Alley, but the natural elements of wood, complemented by living greenery and the industrial accents of metal work is an ideal ambiance that could work very nicely. The Yerba Buena Community has already seen great benefits from this project, further solidifying its success in form and function.

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2.2 Alley Greening Programs

2.2.1 Chicago Green Alley Program (Chicago, Illinois)



Alley with impermeable pavement and poor drainage.



Alley incorporating green alley principles.

Why is the City of Chicago interested in Green Alleys? With approximately 1,900 miles of public alleys, Chicago has one of the most extensive and important systems of infrastructure of any city in the world. Originally unpaved, most had no drainage structures or connection to the sewer system, leaving rainwater to simply drain through surfacing. Decades ago, the City of Chicago paved over the alleys with traditional concrete or asphalt, covering 3,500 acres with an impermeable surface. Storm water drained by simply pitching the alley grades toward the center of the alley, and then to the street where water could enter the city’s shared storm and sewer system. However, the surfaces and grading of many alleys have deteriorated throughout the years, and as a result, localized flooding has become a problem. Greening in Oroville’s alleys can handle this problem in a few different ways.

One of the ways is through storm water management. Up to 80 percent of the rainwater falling on an impermeable surface in a year could pass through a permeable pavement and back into the earth. Chicago implemented permeable pavements that can be used on the full width of an alley, or simply in a center trench. The permeable pavement has pores that allow for water to pass through the surface and percolate through the existing subsoil. Chicago also implemented open bottom catch basins, which are installed in the alleys to capture the water and funnel it into the ground. Pipe under-drains or storm water infiltration trenches can be used in combination with permeable pavement to slow runoff. These both would be beneficial because it would reduce the rate and quantity of storm water runoff, which reduces stress on the sewer system. It would also help recharge the ground water while filtering silt, pollutants and debris. Storm water can also be managed by improving pitch and grade in the Southside alleys. The proper way to grade and pitch an alley is to allow the water to run to the center of the alley, then flow to the street. This would prevent additional sewer infrastructure and flooding in adjacent properties.

Chicago also chose to use high albedo pavement on certain alleys, which reflects the sunlight and reduces the urban heat island effect. The urban heat island effect is a condition where dense urban areas become several degrees warmer than surrounding areas due to the density of buildings and amount of heat absorbing paved areas. Having a cooler environment would help reduce cooling costs, support the survival of urban vegetation, and improve air quality.

Chicago also used recycled materials such as aggregates, tire rubber, and slag (a by-product of steel used for reinforcing the concrete) in the permeable pavements. This reduces the burden on our natural resources while also reducing the amount of construction and industrial waste hauled to landfills.

Chicago also implemented lighting, which conserved energy and reduced glare. This provides a safe environment, with energy-efficient light fixtures that also reduce glare and light pollution so much so that one can see the stars at night. These are known as dark-sky complaint light fixtures, which are specially designed to direct light downward, focusing the light where it is needed. The lights used would also have white bulbs as opposed to yellow or amber bulbs. This allows for people to perceive color more accurately.

Chicago's program began as a pilot in 2006, and through 2010 more than 100 Green Alleys have been installed. We believe that this would be a great alley program to model the Southside Oroville alleys after. There are many usable techniques that would keep the overall integrity of the current system while also helping with storm drainage and the flooding issue of the alleys and surrounding neighbors.

We would particularly suggest:

- Permeable pavements (concrete)
- Dark-sky-compliant light fixtures
- In some alleys (the ones prone to flooding), open-bottom trench basins

2.2.2 Richmond Alley Greening - Mathieu Court (Richmond, California)

One alleyway in Richmond, CA that has received the green alley treatment is Mathieu Court. This alley is the beginning of sustainable planning in this area, and a great example of some useful ideas for the Miner's Alley Project. Being one of the sole alleys in the Richmond area that is sustainable, it deserves attention for its innovative aspects.

Mathieu Court renovations are expected to cost about \$388,815.50 and should be completed by May 1st. These improvements will replace 16,000 square feet of impervious pavement with pervious pavers and turf cells. Bioswales, rain gardens, and native plants will be implemented to simulate/mimic natural systems. These are to be installed in the landscape areas signified by the green blocks along the alleyway. All of this contributes to a healthier urban ecosystem that does not "suffocate" the soil underneath and adds greenery for environmental and aesthetic value.

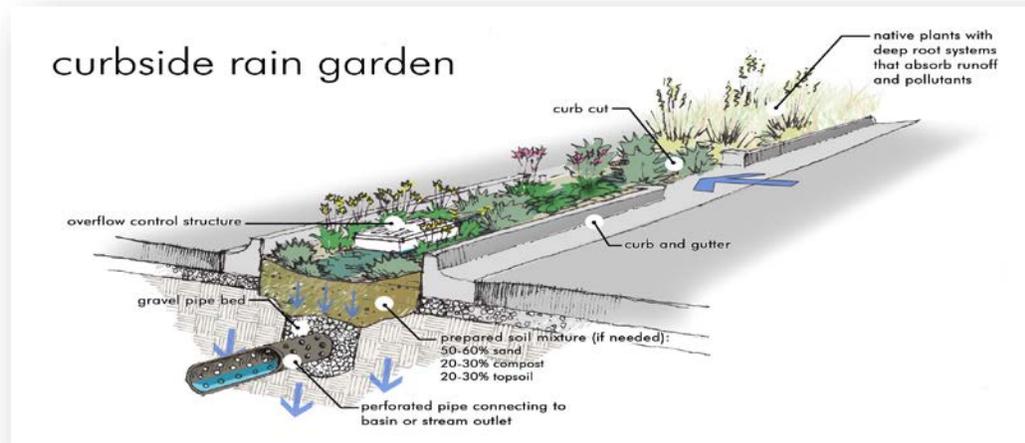
A canopy of trees will also be added throughout the length of the alley as shown in Figure 2.1. These help provide shade for pedestrians as well as add more of aesthetic and biological greenery value. Benches are also being installed in the alley to allow anybody walking through to sit and relax. Both of these additions add a feature that allows possible pedestrians to feel more comfortable in the alley than they may have before. A few of the designated landscape blocks throughout the alley will also be potential community garden areas, inviting more locals to frequent the area and fill their bellies as well. The focus is on both ends of the alley, as seating will be installed prominently here to entice pedestrians to enter the alley.

These renovations to the Richmond alleyway could be implemented in Miners Alley, if there is room, as these all seem like very feasible ideas. Some greenery (maybe including some trees) would be a welcoming addition to attract more people to the alleyway. Vertical gardens would be an excellent way to conserve space while bringing life and beauty to a once bland wall. Pervious pavement is an excellent replacement for the uneven pavement that is currently in the alley. It is clear that the existing pavement in Miners Alley must be replaced, so may as well replace it with pervious pavement or other surfaces. These improvements seem appropriate for the Miners Alley site.



Figure 2.1: Mathieu Court Alley Greening Project (Source: Richmond city website)

Figure 2.2: Example of a Rain Garden that could be implemented in or near Miner’s Alley (Source: Site Systems Landscape Design website, <http://www.sitesystems-landscape.com/Stormwatermanagement.html>)



2.2.3 Ballard Green Alleys (Seattle, WA)

Most U.S. urban areas incorporate alleys in their street design, but whether they are utilized to the full extent is open to debate. For the most part, alleys are a significant but overlooked urban public infrastructure resource. Increasingly, urban alley revitalization is a means of expanding green infrastructure and promoting sustainability, most of these greening programs have a focus on storm water management.

The Ballard Green Alleys is a project located in a residential neighborhood of Seattle, WA and could be referenced as an example for Southside neighborhood alleys. There are two uncontrolled combined sewer overflow basins in Ballard which have exceeded the EPA’s overflow allowance per site per year. This gives the project a primary objective of improving storm water control through green infrastructure: primarily permeable paving, drainage channels, and bioswales. These implementations will ultimately filter water back into the water table and prevent water runoff. Design for the project began in 2009, with construction following in 2010; monitoring is in place during 2015 and 2016. Collaboration with Seattle Public Utilities helped with the funding and construction of porous

concrete paving and roadside rain gardens for 25 alleys. Due to their low density compared with other Seattle districts that have alleys, the Ballard alleys are implementing green infrastructure and native plant species in an attempt to benefit and incorporate ecological connections and habitat corridors on a larger scale.

Ballard Green Alleys also offer simple renovations to improve alleys that require minimal professional assistance if a group of neighbors take steps together. Ideas include naming alleys and making sure they remain clean of trash and dumping. Encouraging public artists and creative art initiatives in the alley are another means, as well as planting native species in pots and window boxes which will further augment a safer, healthier, more quality public space. As a whole, organized alley greening efforts are a relatively new concept in the U.S. but have the potential to provide guidance for new and emerging programs.



*A Ballard Alley, Seattle WA
(Mark Jared Zufelt; Aether Images)*



*Anticipated Green Infrastructure and Public Space Improvements for Ballard Alleys, Seattle WA
(Green Futures Research & Design Lab)*

Recommendations:

- Permeable paving in the form of asphalt, concrete, or pavers in the Southside alleys will bolster groundwater infiltration, reduce storm water runoff, and provide an upgraded surface for walking.
- Give the alleys names and plant native species to create a sense of place, strengthen the quality of public space, and reduce vegetation maintenance.
- Ensure that alleys are maintained and clean to invite people in and encourage public use.
- Making alleys well-lit will improve their feeling of safety and augment public usage.
- Other alley programs in Seattle such as the Clear Alleys Program ban dumpsters and other receptacles from downtown business districts in order to enhance the attractiveness, safety, and walkability of alleys which ultimately reinvigorate alley life. This example is more applicable to alleys in commercial districts such as Miners Alley.

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Chapter 3: Site Inventory and Analysis

3.1 Physiographic Factors

3.1.1 Site Inventory

The topics covered in the physiographic analysis for this project are hydrology, geology, soils, topography, climate, and natural hazards. We will initially discuss hydrology. The water table has been found in the certain areas of Oroville to be between 9-12 feet below ground level, whereas in other areas water was not found even after boring over 15 feet below the ground surface. The CSU Chico Civil Engineering department discovered the water table in the Chico area to be on average 13 feet below the ground surface, which is within the range found in Oroville. The drainage features in Oroville are primarily the Thermalito Forebay, the Thermalito Power Canal, and the Feather River.

Next, there is the geology of Oroville. While the geology of (northern) California is typically very complex, on a relatively small site like Oroville's Downtown and Southside neighborhoods, the geologic features are simple in nature. The site in which we will be looking ranges from 120 feet above mean sea level in the southwest corner to 243 feet above mean sea level in the northeast corner and is underlain by three main geologic formations. These formations are the Red Bluff Formation, the Turlock Lake Formation, and the Laguna Formation. The Red Bluff Formation is characterized by a thin veneer of highly weathered bright red gravels thought to have formed as a result of impeded drainages within the Sacramento Valley. The Turlock Lake Formation is characterized by weathered gravels and metamorphic rock fragments and quartz pebbles; silt and sand are present along the south and east side of the Sacramento Valley's Turlock Formation. Additionally, the Laguna Formation is characterized by a mixture of gravel, sand and silt. Pebbles and cobbles of quartz and metamorphic rock fragments are the predominant constituents of the gravels found here. The majority of rocks and the underlying gravel are smooth/rounded in nature due to being tumbled in waterways for a long time. In the Oroville area, volcanic rocks can comprise up to 20 percent of these gravels.

Relating to the geology of the region, the next topic we are going to discuss is the soils found on our project sites. Sand, gravel, stone, and gold mining are/were the four primary mining industries in Butte County. Of these, only sand and gravel operations as currently present and operational in Oroville. Oroville's position within the "gravel belt" of Butte County, where sediments washed down from the Sierra Nevada reach the slower moving rivers of the flatter Central Valley, places it in an area of productive active gravel mining. The gravels are valued, as are some sands amongst the deposits. These resources are used in combination with Portland cement or asphalt compounds in construction and road building. All of the sand and gravel mining operations within the Planning Area are located south of the Oroville city limits, adjacent to or east of the Feather River. As a result, the entirety of the downtown area of interest is made up of Xerorthent soils, with integrated tailings, and small amounts of human deposited soil

complexes. The alleyways located in South Oroville are underlain by a mixture of Thompsonflat loam and Oroville series soil complex. These consist of very deep, moderately well drained soils that formed in alluvium from decomposition of metamorphic and igneous rocks as well as organic matter.

As far as topography is concerned, Oroville is predominantly flat, unlike the landscape of the Sierra Nevada foothills due east but similar to the level floodplain of the Sacramento River Valley located west of the city. There are some rolling hills spread throughout the district, but not many differences exist between the Downtown site we are examining and the South Oroville alleys, except in the realm of topography because southern Oroville is at a higher elevation. Even in the steepest sections, slope is not a hindrance to construction. Both sites steepest zones have a grade of up to two to four percent.

Next, we will discuss the climate of Oroville based on research findings. We found that the average annual high temperature is 75.2 degrees Fahrenheit, the average annual low temperature is 49 degrees Fahrenheit, and the mean annual temperature is 62.1 degrees Fahrenheit. The average annual rainfall is 30.66 inches.

The natural hazards that are of most concern to Oroville are seismic activity and flooding events. While less seismically active than some areas of the state, Oroville is nonetheless subject to hazards associated with earthquake fault activity. If hit with an earthquake with a magnitude larger than 6.5, there is potential for damage to the Oroville Dam. However, it is highly unlikely (historically, statistically, and scientifically) that an earthquake of said magnitude would occur. “According to the 2005 *Draft Background Report for the Butte County General Plan*, the California Department of Mines and Geology asserts there are a large number of faults within Butte County and in neighboring areas that could be considered [currently active or] potentially active.” The Cleveland Hills Fault is about six miles southeast of Oroville. This fault is classified as an Alquist-Priolo Special Studies Zone, to which special development regulations apply. Seismic activity associated with the Cleveland Hills Fault resulted in a 5.7 magnitude earthquake in August 1975; studies estimate a maximum credible earthquake of 6.5 to 6.7 on the Richter Scale could occur in the future.

The main flood hazards in this region are a 100-year flood event or liquefaction-type episodes. Liquefaction is a phenomenon primarily associated with saturated or near-saturated, cohesionless soil layers. Additionally, in the occurrence of an earthquake, these at-risk soils located close to the ground surface try to separate and stratify, resulting in liquefaction. During liquefaction, soils lose strength, rigidity, and their general structural integrity. As a consequence, ground failure may occur. The areas in Oroville most susceptible to liquefaction include areas within Federal Emergency Management Agency’s (FEMA) 100-year flood zone along the Feather River and other drainages, as well as locations where there are high groundwater levels. Mapping efforts by Butte County for its 2006 Flood

Mitigation Plan indicates that much of the west and southwestern region of the project area is considered to have a high potential for liquefaction.

Given this information, we can begin to design plans for Miners Alley as well as the Southside alleys. Due to the level topography and stable soil of Miners Alley, there are no foreseeable issues there; however the main issue to focus on would be the climate of Oroville. Through most of the year Oroville and the surrounding areas are lovely and comfortable places to live; however, in the summertime the heat is quite notable and the sun is seen less as a luxury and more as a burden. This is not debilitating though because we can choose to place removable or retractable canopies, umbrellas or even misters where they are necessary in order to make Miners Alley an enjoyable location and experience for everyone who visits. There is a multitude of varying sized buildings along Miners Alley, some of which will block a substantial amount of sunlight while others will not, and it is along those lower buildings that some sort of cooling mechanism should be attached. On the opposite side of the spectrum, the winters do get fairly cold in Oroville and long bouts of heavy rain are present in the winter months. This can be solved with solutions as simple as utilizing those same canopies and umbrellas used in the summertime in addition to portable heaters to warm up the visitors of the alley. If there are tables or some form of seating or possibly dining in the alley, then clear plastic "tents" or "drapes" could be placed around the seating to not only hold the heat in, but to also keep the rain out.

Constraints

After thorough inspection and research, no new constraints were identified as a result of the Miners Alley and Walking Loop project within the Downtown area. In Oroville's Southside, in the event that paving and other materials with less permeability than those of the native soil are installed, water runoff rates would increase and first -flush events would become slightly more drastic. During the initial construction phase of grading and digging, airborne dirt particulates could be generated if dry soil is moved about. Also, the erodibility potential of the topsoil will be temporarily heightened. Other than all of these previously mentioned concerns, no other constraints of even slight significance could be found.

Opportunities

While the opportunities presented by the revitalization of the selected alleyways are numerous, the most notable ones in regards to the physiography will be itemized here. Both project locations will have improved soil drainage and penetrability (ergo less standing water, healthier soils and a more nature water table depth). In particular, simply grading/leveling the uneven dirt surfaces of the Southside alleys will result in cleaner, better-looking, and more pedestrian-friendly backstreets. Based on the past and present importance of mining in the Oroville area, small intriguing attractions can be created as a result. Plaques or signage about the geology and soils underfoot can be introduced, leading to awareness of the historical significance of the relationship between Oroville and its surrounding

natural resources. Modification of Downtown’s alleys will lead to fewer pollutants on the walking surfaces, whereas these contaminants can be filtered and sequestered by the subsurface soils. Southside’s currently exposed dirt surfaces will be enhanced by pavers and similar efforts. Silt and other eroded soil materials that usually find their way into storm drains and waterways will do so at a greatly reduced quantity/frequency. The backyards of residents who abut these alleyways will also have less water and eroded soils deposited onto their property, as the alleys will have improved drainage functions and less bare, unconsolidated soil. During the winter months, standing water and water-saturated dirt will also be virtually eradicated. This lack of rutted dirt surfaces and uncompacted soil will also provide safer pedestrian areas and more ADA-compliant thoroughfares.

Climatic opportunities include more protection from the environment. More shade during hot days, and areas with cooler temperatures can also be provided by this project. Less exposure to rain and wind, as well as the possibility of warmer zones can also be achieved during the revitalization process.

3.2 Infrastructure

3.2.1 Site Inventory

Miners Alley and Walking Loop

Utilities

There are some utilities that run through Miners Alley which will need to be looked into during the revitalizing process. There are storm drains and sanitary sewer drains that run directly underneath most of Miners Alley. The manholes will need to be lowered to be flush with the walkway through the alley so that flooding will not become an issue. They are currently sitting slightly above the alley, which makes the manholes susceptible to flooding. The wiring should be placed underground at that time.

Miners Alley is also a frequently used pathway for transportation. It is currently used for trash, delivery services, and for owner/employee parking. The overall goal is to integrate Miners Alley into a “Miners Alley Walking Loop.” The current state of the pavement may be considered ADA compatible, however it would be extremely difficult for someone who is disabled to maneuver through the alley.

Walkability

Miner’s Alley has a Walk Score of 75, meaning that it is very walkable. Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within

a five-minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30-minute walk. The Walk Score methodology was developed with the Walk Score advisory board and has been validated by leading academic researchers. Walk Score has also assigned Miners Alley a Housing & Transportation Cost Percentage of Income of 47 percent. This is in the middle range. Housing contributes 21 percent and Transportation contributes the remaining 26 percent of the total percentage. The Housing and Transportation Cost Percentage represents the urban sustainability and location efficiency of this site.

Traffic Flow and Lighting

The *Lincoln and Huntoon Streetscape Restoration Plan* has been an excellent source of existing data for the study area. The maps provide useful information for Miners Alley renovations such as the traffic flow for those streets and what types of poles the street lights are made of within that area. The *Lincoln and Huntoon Plan* indicates that a majority of the lighting in Miners Alley is mounted on wooden telephone poles (except the ones on the main streets which are spun aluminum). Allowable traffic speeds on Lincoln and Huntoon Streets may be of concern because they are 10 mph faster than the other streets in the Downtown area and only flow in one direction.

Traffic Count

Traffic count information for the intersection of Montgomery Street and Myers Street is noted in Figure 3.2.1. According to the Butte County Association of Governments, “The counts were three-day, 72-hour traffic hose counts collected from Tuesday through Thursday. Bi-directional data was collected for each site and was recorded in 15-minute intervals.” The daily average for the intersection is 10,936, with an A.M. peak volume of 883 and a P.M. peak volume of 1009. In comparison, the intersection of East Avenue and The Esplanade in Chico has a daily average of 24,616, an A.M. peak volume of 1838 and a P.M. peak volume of 2061. Both are major intersections in their city but Oroville’s population and traffic present a Downtown that is less busy than Chico’s.

Street Lights (Wattage)

Miners Alley has 11 street lights spanning its length, ranging from 70 to 100 watts (Fig. 3.2.1). In contrast Montgomery Street has street lights placed more frequently with wattages up to 150. This may present an opportunity to add extra lighting to Miners Alley to attract attention and add safety. Further analysis is recommended to see if this opportunity does indeed exist, and to see what form of lighting could be used.

Sewer and Storm Drain Systems

Storm Drain and Sanitary System Maps are included in the *Lincoln and Huntoon Restoration Plan* and on the City of Oroville website. These show six minor drains for the sanitary system and two drains for the storm drain plan. The

placement of the drains for the sanitary system can be referenced in Figure 3.2.4. There are two storm drains within Miner’s Alley (Figure 3.2.3).

Bike Routes/Bike Paths

Downtown Oroville has several bike routes that can help connect it with other parts of the city. There are bike routes located on Bird and Robinson streets south of Miners Alley along the proposed walking loop. There is also a bike route that runs along the Feather River, north of Miners Alley (Fig. 3.2.10). Though several bike routes exist within or adjacent to Downtown, few designated bike racks exist. There are only 3 small bike racks located on Bird Street. The aqua colored dots in Figure 1 show known designated bike racks. This presents an opportunity to expand Oroville’s bicycle infrastructure.

Southside Alleys

The Southside alleys currently have leaning fences and lack lighting. The base is a gravel or dirt that has been overgrown with weeds and other plants. Myers Alley is also currently has a loose gravel walkway. It is between a commercial block that hosts a bar and several stores, and a residential block.

Street Lights (wattage)

Neither of the focus alleys in Southside Oroville (Myers Alley and the Costa-Ontario alley) have street lights within them (Fig. 3.2.2). Southside Oroville in general lacks in street lighting, with no alleys lit, infrequent placement, and low wattages. An opportunity exists to add lighting to this area of Oroville. Further discussion is needed to discover if this is appropriate, practical and within budget. Adding light to this area could help with safety, and unique lighting could be useful in establishing a sense of place for this community.

Bike Routes/Bike Paths

Southside Oroville has two bike paths running through the area. One path runs east to west on Wyandotte Avenue, and the other runs north and south on Lincoln Street (Fig. 3.2.11) No bike racks are known of within the area, but routes in this area serve more as thoroughfares, as points of destination are infrequent. The bike route on Lincoln connects Southside with Downtown and is an interesting link between the two sites. This opportunity should be further explored.

2.2.2 Site Analysis

Miner’s Alley and Walking Loop - Constraints and Opportunities

Utilities

We do not think that the cost to transition the existing wires would be viable at this time. During our research we found that a residential transition for wires to be placed underground can range to \$7,000 or more. This cost is due to the crossing of the right-of-way or easement, upgrades to the infrastructure, and that the trenching will be completed by PG&E. Due to the fact that most of the buildings in the Downtown area were built in the early 20th century (or earlier), the wiring would need to be brought up to code with the building concurrently with placing the wires underground. We would then need to consider who would be responsible for the cost of rewiring.

We propose repaving Miners Alley to make it ADA-compliant and to make sure that standing water is not an issue at any time through the year. We would give a very rough estimated cost of \$150,000 for the asphalt to pave the entire length of Miner's Alley. This cost is based on a \$4/sqft estimate; however this does not include the removal of the existing layer or any of the labor. Due to high costs, the work could be phased in by block-length sections at a time.

A simple, single-colored pattern starts anywhere from \$8 to \$12 per square foot, while a more elaborate design with contrasting colors and borders can cost \$12 to \$18 per square foot or more, according to StampedConcrete.org. With automobiles continuing to drive through the area, we believe that the design would wear down and lose its aesthetic appeal. However it may be possible to add a center strip of patterned paving.

We also suggest placing signs in the Miners Alley, which would help users identify the fitness loop. These signs could be placed at the beginning and/or ends of an alley and possibly place a sign of the full loop at the "beginning" of Miner's Alley by the Oroville Inn and the Miners Alley Brewery.

Walkability

Miners Alley, as stated before, currently has a Walk Score of 75 which is good; however our goal would be to increase this to a "Walker's Paradise," which would mean that the score would be increased to a 90 or above. What this means is that daily errands do not require a car. The Housing and Transportation Cost Percentage shows that Miners Alley is current not a very cost-efficient place to live. We would like to decrease the Housing and Transportation Cost percentage to a lower one. This could be done by implementing recommendations presented in the demographics, market demand, and existing business context sections of this document.

Traffic Flow and Lighting Types

Allowable traffic speeds on Huntoon and Lincoln should be decreased if possible to the same 25 miles per hour as the surrounding streets. To accomplish this the streets must return to two-way traffic, just as the *Lincoln and Huntoon Restoration Plan* suggests. If this can't be accomplished, another suggestion would be to include signs highlighting to drivers that pedestrians may be traversing the "Walking Loop." Brightly colored signs (neon yellow) that highlight crossings would be the perfect way to increase awareness of the fitness loop. These could be built near the edge of the

sidewalk of a crosswalk or midway between the intersections and the crossings. The City should also implement the recommendations for mid-block pedestrian crossings in the *Lincoln Huntoon Restoration Plan*. These crossings incorporating in-pavement lighting would inform drivers of any people that need to cross. Neon yellow signs with pedestrians on them can be used for these crossings as well.

Street Lights (wattage)

Opportunities exist in Downtown to add lighting to the alleys. Lighting in Downtown Oroville should be more festive and retail-oriented. The lighting in Miners Alley should also tie into the historical features of the downtown area.

Sewer and Storm Drain Systems

There is a clear need for improvement in the pavement for this streetscape as previously discussed, which would be a great opportunity to install more storm water drains in the alley. This can be done concurrently and again be phased in at a block scale. Any improvements to the sanitary sewer system should also be implemented while the alley is being repaved. Although it may not be a priority, the diameter of the sanitary sewer pipes is the minimum allowable as shown in Figure 3.2.5. Increasing the size of the pipes while improving the rest of the alley will increase the flow and could decrease flooding in the desired area. Adding more manholes would provide more stormwater coverage, which will reduce flooding in the concave areas of the alley. Having a slight slope towards the manholes would also decrease any possible flooding in the alleyway also.

Bike Routes/Bike Paths

An opportunity exists to add bike racks in Downtown Oroville. The promotion of bike use in the Downtown area can be accomplished by adding bike racks and perhaps some signage.

Other Opportunities – Wattway Solar Panels

Solar infrastructure would be a sustainable addition Miners Alley if the City is able to acquire Wattway panels. These would be an easy installation after any new paving from the redevelopment of the alley. If possible a community garden or any vegetation would be useful to include for drainage and other factors such as biological and aesthetic value. It would be beneficial to include them on any new pavement that is installed in the alley. If there isn't enough funding to surface a majority of the alleyway with Wattway panels, a small section can be established for tourism purposes. This can attract people to Miners Alley who may not have had a desire to go there before. Just having an innovation that most others don't will bring fresh faces to the Downtown area.

Wattway panels are thin solar panels that can be placed on top of existing pavement; they should be installed on the ground. Heavy vehicles are able to drive over these panels and the alleyway does not have much traffic to begin with.

It would also be a viable option to place the Wattway solar panels at the midblock pedestrian crossings. This would create a very distinct difference in the crossing areas and would make drivers more aware of the area.

The cost of Wattway panels per square meter should be compared to the production cost of electricity. Photovoltaic energy is measured in watt-peak, which takes into account sunlight conditions. Today, depending on the technology used and the support on which the panels are installed, prices fluctuate between 2 to 8 euros/watt-peak. The cost with Wattway is estimated at 6 euros/watt-peak. (about \$7/ watt-peak).

Furthermore, it is interesting to note that Wattway can turn an existing surface into a moneymaker by providing an additional use, which has a positive impact on the final price. With Wattway, there is no need to rent or purchase farmland to install solar panels, nor do you need to redo your entire roof to produce photovoltaic electricity. Wattway panels have a 15 percent yield, compared to 18-19 percent for conventional photovoltaic panels. Wattway panels are applied directly on the existing roadway, without having to redesign the road structure. There is no need to destroy or rebuild infrastructure, which has a positive impact on the overall cost of the renewable energy Wattway produces. Tests have shown that they can bear one million truck tire passes without damage.

Southside Alleys - Constraints and Opportunities

For the Southside alleys that we are focusing on, we would propose for the fencing to be replaced with a chain-link fence. This would provide the homeowners with a visible view of the path; or privacy plastic slats could be placed into the fencing. We would like to propose either a gravel base in the alley (estimated \$1.40 per sqft at one inch depth), porous concrete (which can range from \$2.00 to \$6.50 per sqft with 20 to 30 year lifespan), porous asphalt (\$0.50 to \$1.00 per sqft with 15 to 20 year lifespan), or interlocking pavers (\$5.00 to \$10.00 per sqft with a 20 to 30 year lifespan). Again this does not include the cost of labor. The gravel currently in Myers Alley could be re-compacted to make it a more pedestrian-friendly option for the alley. We believe that these would be the best options for the walkway through the alleys and to promote their use as school walkways.

We also see an opportunity with the corner vacant lots adjacent to the Costa-Ontario alley. We would like to propose a playground or a park, possibly with picnic tables and the small BBQ's for public use. There is also an opportunity to place some sort of covered picnic area that could be utilized by the neighbors for celebrations such as birthday parties.

Street Lights (Wattage)

Opportunities also exist in Southside to add lighting to the alleys. Alleys in Southside are in residential or low-density commercial areas. No lighting exists in these alleys yet, so the approach should be infrastructural with a design to

provide a sense of place for the Southside residents. We would suggest using lights that are dark-sky compliant to that they do not affect the current night sky that the residents see while also providing safety.

Bike Routes/Bike Paths

Southside Oroville's bike infrastructure could be boosted by a map located by Myers Alley that shows the routes and paths that lead to other sections of the city.

Summary of Recommendations

Some of the opportunities in Miners Alley that we would like to restate would be the following:

- Electrical wires should be left as-is due to cost
- The alley should be repaved using asphalt
- Create signage throughout the "Miners Alley Walking Loop"
- Mid-block intersection crossings
- Increase bike accessibility
- Utilize solar panels, especially in the mid-block crosswalks.

Some of the opportunities in the Southside alleys would include the following:

- Replace current fencing with chain-link fencing
- Create a permeable walking path in the alleys (gravel, asphalt, or concrete)
- Place lighting in the alleys
- Promote bicycle use through the Southside alleys
- Create community space in currently vacant lots

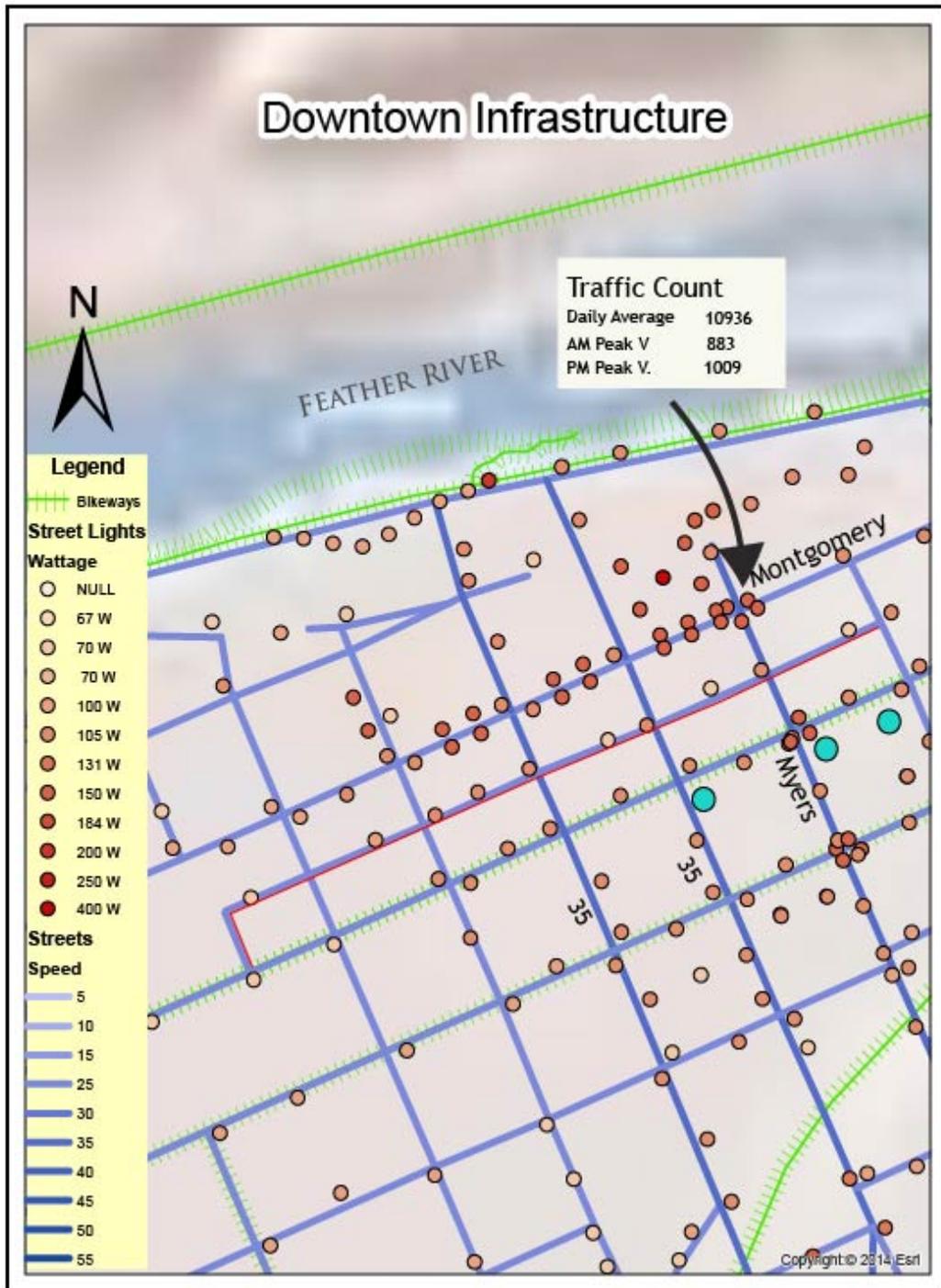


Figure 3.1: Downtown Infrastructure, Bike Paths, Street Light Placement and Wattage, Speed Limits

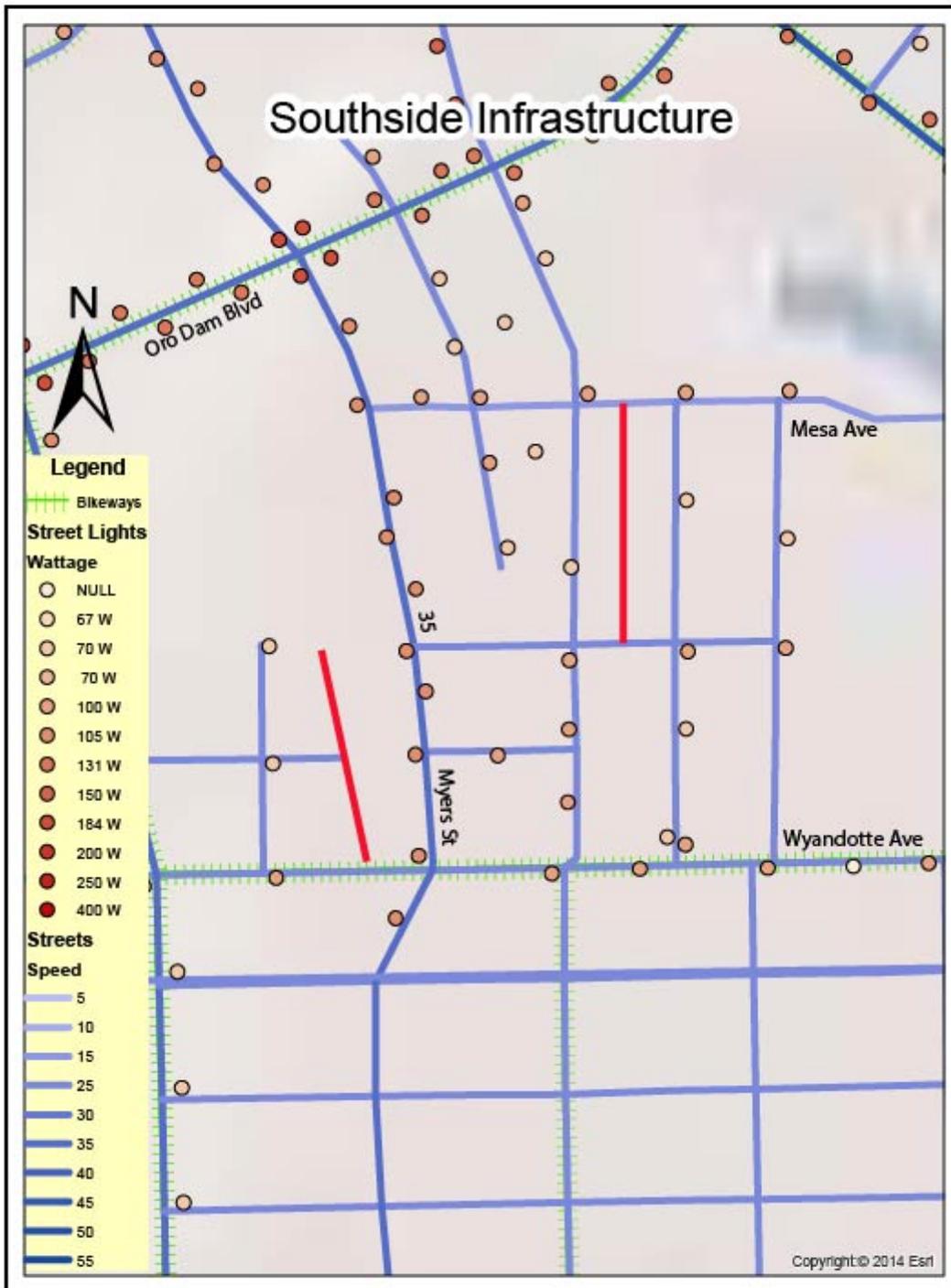


Figure 3.2: Southside Infrastructure, Bike paths, Street Light Placement and Wattage, Speed Limits (Source: GIS Oroville/Public Works)

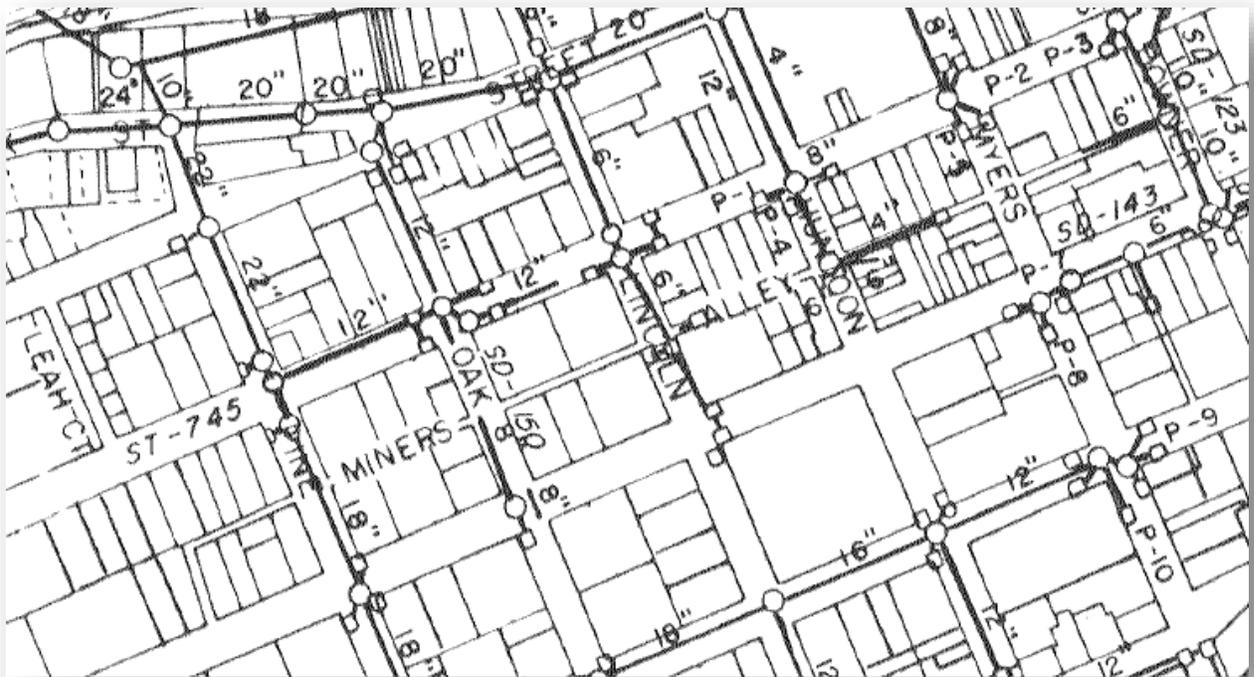


Figure 3.3: City of Oroville Storm Drain Map, Section 8 (Downtown)



Figure 3.4: City of Oroville Sanitary Sewer System Map, Section 8 (Southside)

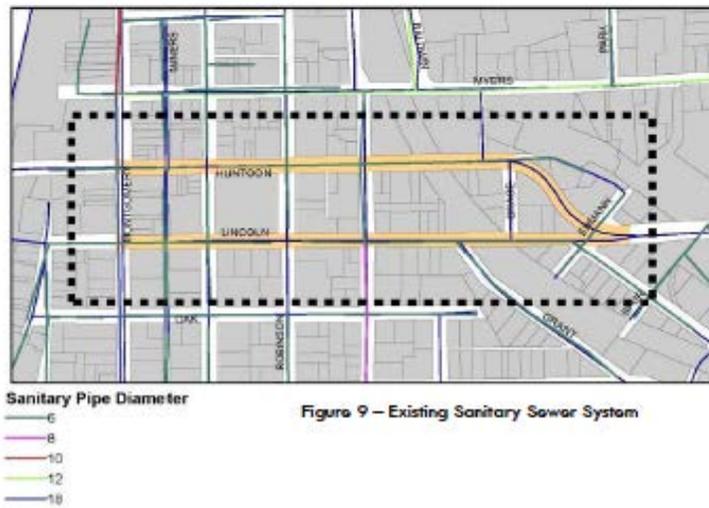
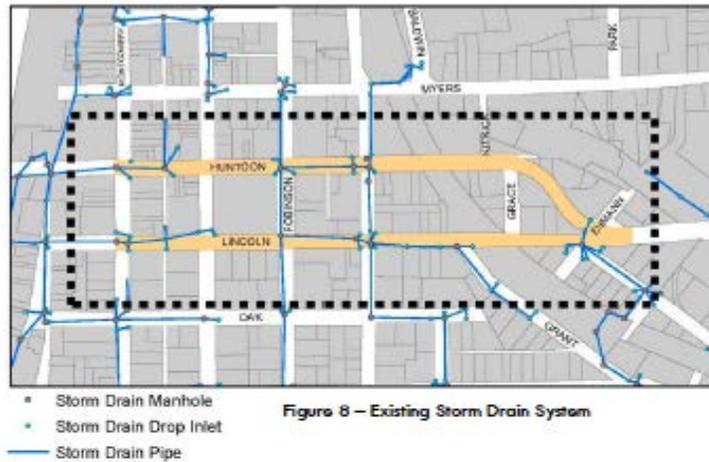


Figure 3.5: Downtown Storm Drain and Sanitary Sewer System Maps

(Source: Lincoln and Huntoon Streets Restoration Plan)

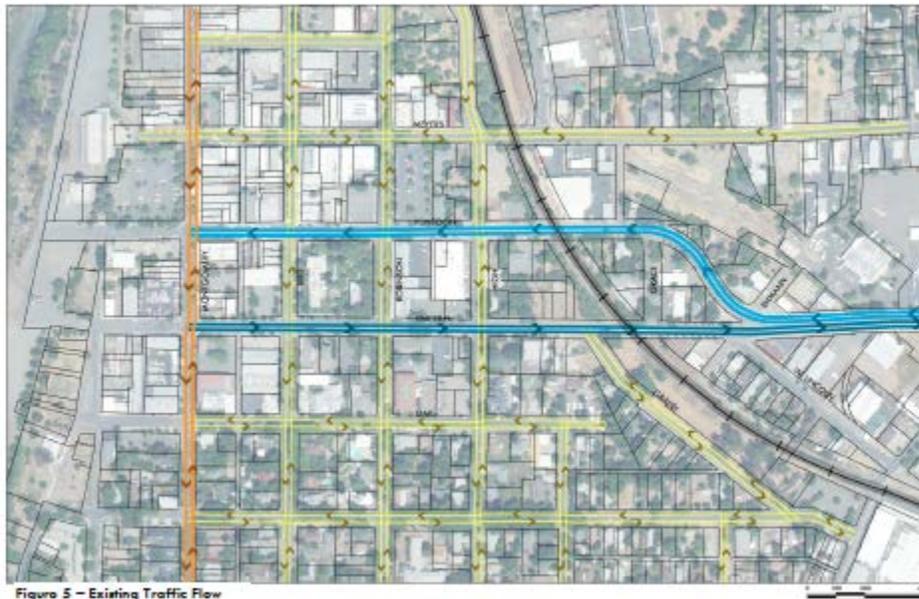


Figure 3.6: Existing Downtown Traffic Flow (Lincoln and Huntoon Restoration Plan)

Figure 10 – Existing Lighting



Figure 3.7: Lincoln and Huntoon Area Existing Lighting

3.3 Biological Site Analysis

The biological factors within Downtown Oroville and the South Oroville neighborhood include ecological communities, habitats/niches, invasive species, wetlands, wildlife, and plants. This site inventory addresses existing features with an analysis of topics such as the Feather River fish hatchery, sensitive local species, urban habitats, and low-impact development (LID)/green infrastructure.

3.3.1 Site Inventory

Miners Alley and Walking Loop

The Oroville area is home to an array of native plant, fish, and wildlife species. A number of these species are special-status and are protected by the state and/or federal government. It is not likely that the City contains critical habitats, nor are special-status species likely to occur within City limits.

The Feather River, a vital resource to the Oroville urban area, is home to many anadromous fish species. The river incorporates the Feather River Fish Hatchery, which has operated near Downtown Oroville and the planning site since 1967. The Chinook salmon, a native and state/federally endangered species, occupies these waters along with native Steelhead trout. Both fish species spawn naturally and artificially in the Feather River and hatchery throughout the year.



(Left) Feather River Fish Hatchery - present (Source: CA Department of Fish and Wildlife); (Right) Feather River through Oroville (Source: Ray Bouknight)



(Left) Invasive species, like this Tree of Heaven (Ailanthus altissima), manage to sneak into the most unusual places in Miners Alley. (Right) Papilio ctesippeus, colloquially known as the Giant Swallowtail is likely to occur in the planning area. (Source: digital-images.net)

Special-status plant species are unlikely to occur as much of the Miners Alley Walking Loop is layered with paved, impervious surfaces that do not currently support a native plant environment. Native insects, including the Giant Swallowtail butterfly, May beetle, and the honeybee may occur in the planning area; many of these insect species are limited to areas with a host of native plant species that they require to feed from such as flowers including the California Poppy and Blue Flax Blossom. Invasive plant species, such as the Tree of Heaven, Yellow Starthistle, and Field Mustard have the potential to occur in the planning area as certain invasive species adapt to non-native environments with more ease than native species.

The Oroville area as a whole has a low tree canopy coverage area (around five percent). As such, no trees exist within Miners Alley; thus no forms of natural shade are present. Awnings are also not present, making shadows cast by buildings the only form of shade within the alley. Tree canopies do occur along the walking loop which offer shade and protection from the sun.

Currently, Miners Alley and Walking Loop have no low-impact development implemented. These areas have a large grey infrastructure surface area that carries away much of the storm water runoff via curbs and gutters into drainage inlets (DI's). A large number of storm drains and subsurface drainage pipes are scattered throughout the Miners Alley and Walking Loop areas.



(Left) Current impervious pavement and drainage in Miners Alley; (Right) Poor surface conditions in Miners Alley are common.

Southside Alleys

The Southside neighborhood has similar biological factors as a whole when compared with the Miners Alley and Walking Loop. The planning site is not located in any critical habitat area and the likelihood of special-status species navigating through it is low. There is less impervious pavement surface area and less of an urban environment which may increase the likelihood of non-critical plant life to be found growing in the alleys. The urban environment of the Southside neighborhood, which primarily incorporates residential houses as well as alleys, creates difficulty for the native and invasive species which live and travel through it, due to habitat fragmentation.

Most Southside alleys include some vegetation, which supports native plant species as well as opportunistic invasive species. Native insects may exist in the planning area but typically need significant amounts of native vegetation. For instance, if flowers such as the California Poppy and Blue Flax Blossom, or shrubs such as Rabbitbrush were planted in Southside alleys, native honey bees could inhabit the planning site. However, invasive plant and insect species are likely to occur in the Southside alleys due to their outcompeting the native species and easy adaptation in non-native environments. According to the *Oroville Area Urban Greening Plan*, the South Oroville neighborhood has a tree canopy of 5.9 percent, which includes both public and private property.

All drainage from the Southside neighborhood eventually feeds into the Feather River. No green infrastructure or other forms of low-impact development currently exist in the Southside alleys. Many of the cross streets but few of the alleys in the Southside neighborhood have storm drains. Most alleys are unpaved and take the form of compacted gravel and/or sediment. Due to these factors and not having proper drainage in place, flooding is a problem after periods of heavy and/or consistent rain.

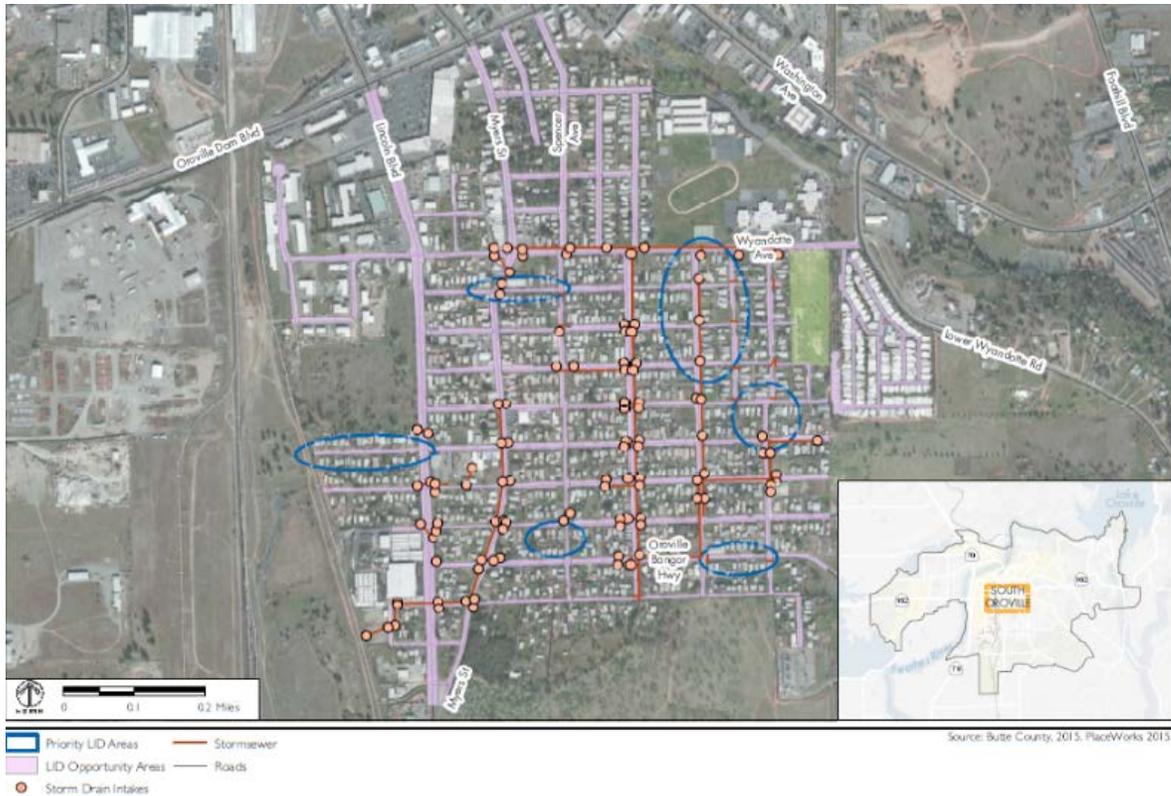


Figure 3.8: Storm Drains in Southside, as well as other important storm water information (Source: Oroville Urban Greening Plan)

3.3.2 Site Analysis: Constraints and Opportunities

Miners Alley and Walking Loop

The Miners Alley and Walking Loop areas have few biological resource constraints. These areas are not habitats for any special-status species that require special care. Limited unpaved space may create a constraint issue for additional plantings. With a low canopy-coverage area, additional trees and plants would be a large benefit to Oroville. Increasing the tree canopy and greenery reduces air temperatures and helps reduce storm water runoff. In-ground trees may cause damage with their root system, but planters containing small trees, shrubs, and flowers would be able to

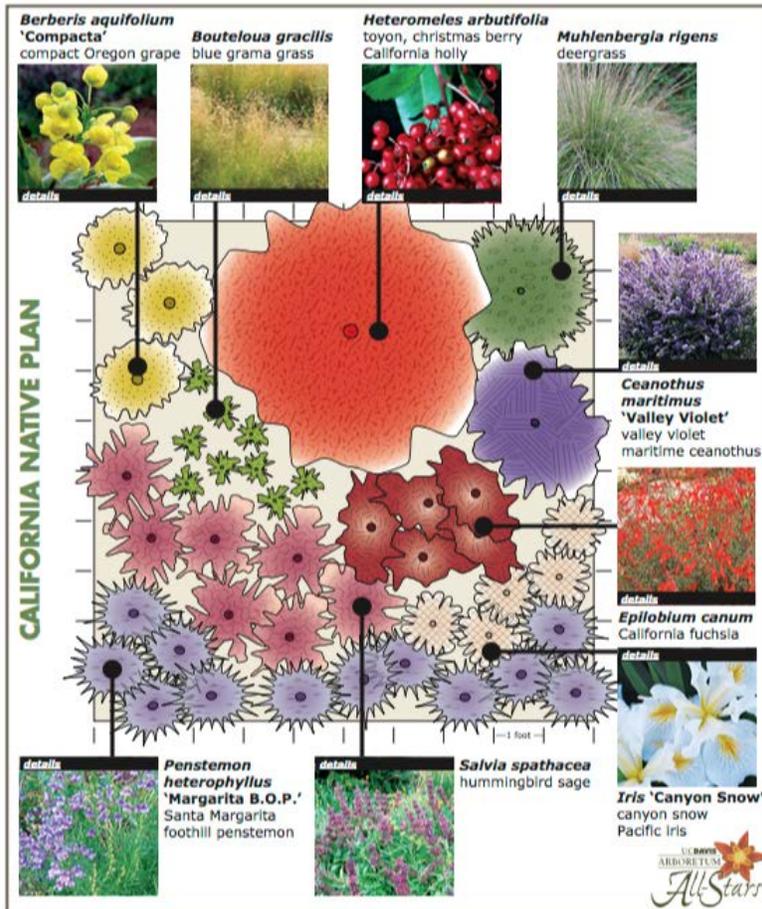
fit into the alley while leaving room for vehicle access. Introducing native species would reflect the beautiful environment surrounding Oroville, while also reducing costs as they are low-maintenance.

Miners Alley and the Walking Loop have an abundance of opportunities at hand to increase the amount of biological resources in the area. The planning site could benefit from planting native plant species. These species often require less water and maintenance, are drought tolerant, and attract native insect and bird species. While some pavement may have to be removed, additional trees and plants could increase the canopy coverage and attractiveness of these areas. Doing so would also open up the opportunity to implement urban greening.



Simple planters that take up little space and could be made from recycled materials

Currently, there is a lack of urban greening in the planning site. Urban greening can help reduce the impacts of built-up storm water by storing, draining, and/or filtering the water in a natural way. Many forms of urban greening include



Above: The All-Stars are species that are tough, don't require a lot of water, have few pest or disease problems, and are easy to grow. Click [here](#) to visit the UC Davis Arboretum website to learn more about these species, including a list of 100 (native) All-Star species! (Source: UC Davis Arboretum)

Left: The UC Davis Arboretum experts have researched easy-to-grow, native California plant species. This 10ft by 10ft garden layout could easily be modified to fit into the Southside Alleys. (Source: UC Davis Arboretum)

tree and plant life. Combining low-impact development and native plant species can create a low-maintenance environment that is beneficial to the City and its residents during any season. Rooftop storm gutters could be directed into planters in Miners Alley to reduce the amount and filter the water flowing into the storm drains.

Southside Alleys

The Southside alleys face similar constraints and opportunities as the Miners Alley and Walking Loop areas, though at varying levels. These alleys are not home to any special-status species, however, they are mostly unpaved, dirt alleys that host a limited number of plant species. Many of these plant species are wild, whether native or exotic. Removing and controlling the population of invasive species could pose an issue. Southside alleys currently have flooding issues during times of heavy rainfall that need to be addressed. As with the other locations, there are many opportunities for these alleys.

Due to the number of unpaved alleys, there is opportunity for planting native plant species. As safety is a concern for these alleys, creating an identity for them could increase how residents interact with the alleys. Planting native species here can help residents identify with the natural environment they live in. The Southside neighborhood residents could name the alleys, giving every alley an identity. This could become a great educational experience for residents (especially children), and could possibly attract visitors if implemented correctly. The alleys could become small-scale native gardens and walkways. Native plants attract native insects and birds, further reflecting a more natural environment. Installing bird houses and butterfly gardens attracts animals that can combat the population of annoying pests (such as mosquitos). Signage can be used to inform alley users about the native plantings, birds, and insects that visit the area, as well as identifying the names of the alleys.



Joe Pie Weed and Butterfly Bush are two sources of nectar for native Giant Swallowtail butterflies (Source: provenwinners.com & snetsingerbutterflygarden.org)

This educational experience should be a great opportunity to involve local Southside schools. Classes from the surrounding schools could install and maintain these bird houses and bat boxes and make returning field trips to further educate the children. The students could help with the planting of native species and regularly return to perform small maintenance activities, such as weeding. This could be implemented as an after-school program or club that would not only aid with the alleys but work on educating members about the native environment.

Current conditions in Southside alleys. There is ample opportunity for low-impact development, native plants, and other forms of development.

In the Southside alleys there are currently no forms of low-impact development and the alleys themselves are poorly drained. Considering the flooding issues that the surrounding neighborhood faces, this makes the Southside alleys prime testing grounds for implementing low-impact development in Oroville. Low-impact development can help manage excess storm water while still reflecting a natural environment. This method of storm water management is often cheaper than traditional grey infrastructure, which will be important with limited funding. If a paved walkway

is desired, permeable pavement is a possible solution as it allows water to infiltrate the surface. Some vehicles will need to access the alleys, such as garbage trucks and other services, so a weight-bearing option will have to be chosen. The Southside Alleys house many great locations for testing designs that can be used in the entire Oroville area.

In addition to permeable pavement, other forms of low-impact development could be beneficial to the Southside alleys. Bioswales can collect excess storm water runoff and allow water to evaporate or be treated as it infiltrates the soil. They also help slow water down so the runoff does not attain high speeds. Some areas of the Southside alleys (including the Myers Street alley) have large areas of undeveloped land where bioswales would fit. Planter boxes fill a similar role, but in space-limited sites. Where bioswales do not fit, planter boxes could be installed to reduce storm



Left: Bioswales are vegetated channels that retain and treat storm water.

Right: Planter boxes collect storm water runoff and are ideal for space-limited sites. (Source: U.S. EPA)

water issues. Strips of these boxes could be run along fences in the alleys and still provide space for vehicles.

3.4 Land Use, Zoning and Regulatory Analysis

Miners Alley and Walking Loop

The Miners Alley’s path runs through five different land use zones (Figure 3.4.1). The majority of this alley is located in Oroville’s Downtown Historic Overlay (DH-O). However, segments of the alley run adjacent to Professional Office (OF – light pink in Figure 3.9), Public/Quasi Public (PQ - blue), Medium- and High-Density Residential (R3 and R4, respectively – brown and dark brown), and Downtown Mixed Use (MXD – dark red) zoning districts. These zones and overlays specify allowable uses in these areas. Different portions of Miners Alley and the Walking Loop will therefore need to comply with varying land use standards.



Figure 3.9: Downtown Oroville Zoning Map (Source: <http://www.cityoforoville.org/>)

Downtown Mixed Use (MXD) District

Approximately half of Miners Alley is in the Downtown Mixed Use zone (Figure 3.9). The intent of this zone, according to Oroville’s municipal code, “to strengthen Downtown Oroville as a pedestrian-oriented activity center with a diversity of commercial, employment, and residential uses.”

This alley revitalization plan aims to do just that by creating an attractive and inviting public space to enhance commercial and entertainment uses, as well as highlight local art and artists. While the City of Oroville has approved this outdoor public space for outdoor dining, vendors and artwork, we recommend implementing actions to protect pedestrian traffic and occupancy by installing bollards, gates or other kinds of barriers to ensure motor vehicles cannot

enter these spaces during peak usage. Ideally these barriers should have a unifying theme and/or adhere to aesthetic standards as they are set forth by the City of Oroville. In pursuing a more robust downtown community this analysis will consider the City's Site Design Guidelines to "...minimize potential conflicts between residential and nonresidential uses... so as to minimize the residents' exposure to noise, odor and glare" (Ord. 1749 § 4; Ord. 1763 § 9).

Land Use Regulations for Mixed Use (MX-) Districts

In the Downtown Mixed Use (MXD) district, restaurants and cafes are permitted by right, as are retail food and beverage sales with less than 10,000 square feet of floor area. Retail food and beverage sales with a larger floor area require approval of a use permit. However, the City has adopted criteria for separating retail alcohol sales from residential areas; retail alcohol sales within Miners Alley would be well within the 500-foot separation threshold that triggers Planning Commission review (Ord. 1749 § 4). Mobile food vendors are allowable in the Downtown Mixed Use district with an administrative use permit, as are concerts and performances, as well as farmers markets. Low- and moderate-impact home occupations are allowed by right and with an administrative permit, respectively. Instructional or production studios are also allowed by right. The Downtown Mixed Use regulatory framework is generally consistent with the activities envisioned for Miners Alley.

Refuse Collection Areas

There are several locations in Miners Alley with dumpsters that could expose future users to odors. However, adopting standards such as the following would make for more pleasant scenery and give the receptacles a clearly designated place:

1. Except for residential developments that include no more than 2 dwelling units on a single site, all areas used for refuse collection shall be enclosed by a locked, solid-walled enclosure that is faced with stucco, split-block masonry or a similar finished surface.
 - a. In multiple-family residential and professional office developments where trash cans that hold no more than 50 gallons of material are used for refuse collection, the enclosure shall have a minimum height of 42 inches.
 - b. In all other non-residential developments, enclosures shall have a minimum height of 6 feet.
2. Gates for refuse collection areas shall consist of a pre-manufactured solid material, such as metal or a similarly durable material.
3. All refuse collection areas shall be on concrete slabs.

Office (OF) District

The intent of Oroville’s Office zoning “is to accommodate employment-generating uses that have minimal adverse impacts upon the residential character of immediately adjacent neighborhoods.”

One block on the western end of the alley runs through this zone. Uses such as concerts and performances, retail sales, or restaurants and cafes are not permitted in this zone. This area will therefore likely have less, or zero, need for art and entertainment support. However, as part of Miner’s Alley and the Walking Loop there are many improvements to be made here in terms of making the space more functional, aesthetically pleasing and giving a sense of congruency throughout Miner’s Alley and Walking Loop.

Public or Quasi-Public Facilities (PQ)

The zoning in this district is designed for the accommodation of governmental, public, public utility and educational facilities. In the PQ district, the City of Oroville may elect to activate outdoor spaces with seating, lighting and/or additional park and playground amenities. The Public Law Library would be a good example of open space available for public use.

The types of land use allowed in the PQ zone are limited compared to MXD and OF. Parks, playgrounds and farmers markets are allowed with a permit. These are all potential land uses the City may want to consider for the sake of drawing traffic to this area. However, parks can sometimes draw an undesirable population and should be approached with such in mind. Encouraging a homeless, transient or drug culture to the area will work directly against efforts to enliven the area.

Residential Zones

- *High Density Residential (R-3):* According to Oroville’s municipal code, the intent of this zone is to “provide living areas within the city where development provides for high-density concentrations of dwelling units in various types and styles of housing.”
- *Urban-Density Residential (R-4):* The intent of this zone is to “provide living areas within the city where development provides for very high concentrations of dwellings units in various types and styles of housing.”

Multiple-family dwellings, duplexes and attached single-family dwellings are allowed by-right in both zones, while low- and moderate-impact home occupations are allowed by-right and by administrative permit, respectively. Other land uses are limited in residential zones. Cafes or vending is not allowed in these zones. While streamlining and encouraging multiple modes of traffic through residential areas is important to the overall flow of the Walking Loop, the city’s efforts to achieve revitalization in the Downtown area should be focused on the Mixed Use (MXD) and Office (OF) zones.

Depending on the needs of the city, there are incentives available to encourage the desired type of residential housing. For example, if the city wanted to encourage high density or low-income housing development they should consider using the following incentives:

1. A reduction of site development standards, or a modification of zoning or architectural design requirements.
2. Reduced minimum lot sizes or dimensions.
3. Reduced minimum setbacks.
4. Reduced minimum outdoor and/or private outdoor space.
5. Increased maximum site coverage.
6. Increased maximum building height and/or number of stories.
7. Reduced parking ratios.
8. Reduced minimum building separation requirements.
9. An increased density bonus.
10. The waiver, reduction or deferral of planning, plan check, construction permit and/or development impact fees.
11. Approval of mixed-use zoning in conjunction with the housing development, if commercial, office, industrial, or other land uses will reduce the cost of the housing development and if the commercial, office, industrial or other land uses are compatible with the housing development and the existing or planned development in the area where the proposed development will be located.
12. Direct financial aid, such as a redevelopment set-aside or community development block grant funding, in the form of a loan or grant to subsidize or provide low-interesting financing for on-site or off-site improvements, land or construction costs.
13. Other regulatory incentives or concessions that result in identifiable, financially sufficient and actual cost reductions.

Downtown Historic Overlay (DH-O)

The Downtown Historic Overlay provides additional regulations for the “identification, protection, enhancement, perpetuation and use of historic resources within Downtown Oroville that reflect special elements of the city’s architectural, artistic, cultural, political and social heritage, for the following reasons:

1. To safeguard the city’s heritage by encouraging the protection of significant elements of its history.
2. To foster civic pride and a sense of identity based on an appreciation of the city’s past and the recognition and use of historic resources.
3. To enhance the visual character of the city by preserving diverse architectural styles reflecting various phases of the city’s history, and by encouraging complementary design and construction for contemporary buildings.

-
4. To strengthen the economy of the city by protecting and enhancing the city’s historic attractions for residents and visitors.
 5. To stabilize and improve property values within the city by protecting areas of historic buildings from encroachment by incompatible designs.
 6. To promote the enjoyment and use of historic resources appropriate for the education and recreation of the people of the city.
 7. To integrate the preservation of historic resources and the consideration of relevant information about these resources, into public and private land management and development processes.
 8. To conserve valuable building materials and energy resources by ongoing use and maintenance of the existing built environment.”

The historic advisory commission is responsible for determining whether a building, structure, site or improvement is a contributing feature of the DH-O district.

Landmark Modification and Landmark Demolition Review & Permits

If a building or structure is listed in a City of Oroville historic survey for the DH-O district, then the following requirements shall apply:

1. A landmark modification permit shall be obtained before modifying the structure, when required by Section 17.48.050.
2. A landmark demolition permit shall be obtained before demolishing the structure when required by Section 17.48.060.

“Historic Area” in Downtown Oroville

It should be noted that the “Historic Area” in Downtown Oroville encompasses only a small portion of the DH-O district. This “historic area” is not a separate overlay or district; rather it encompasses the Old Oroville Commercial District which is listed on the National Register. Standards for the “Historic Area” are as follows:

1. A portion of downtown Oroville is designated as an “historic area.”
2. All structures built, remodeled, rehabilitated, or altered in this designated area shall conform to a “TURN OF THE CENTURY” theme; the façade of each building in the area, when altered, shall conform to this theme.
3. The historic advisory commission are hereby charged with the responsibility to oversee and monitor the development of this theme.

The Old Oroville Commercial Downtown Historic District is discussed further in **Chapter 3.6, Historic and Cultural Resources and Site History**. A map of the “Historic Area” is included in Oroville Municipal Code as Figure 17.44.040. It includes many of the buildings on the north side of Miners Alley.

Southside

Southside has recently been annexed into the city of Oroville, leaving its county status and preparing to adapt to city standards. This area is primarily Medium-Low Density Residential (3-6 du/acre), along with some Commercial and Public or Quasi-Public Facilities. The zoning map within Oroville’s 2030 General Plan doesn’t specify which commercial zoning applies, but it is likely Limited Commercial (C-1).

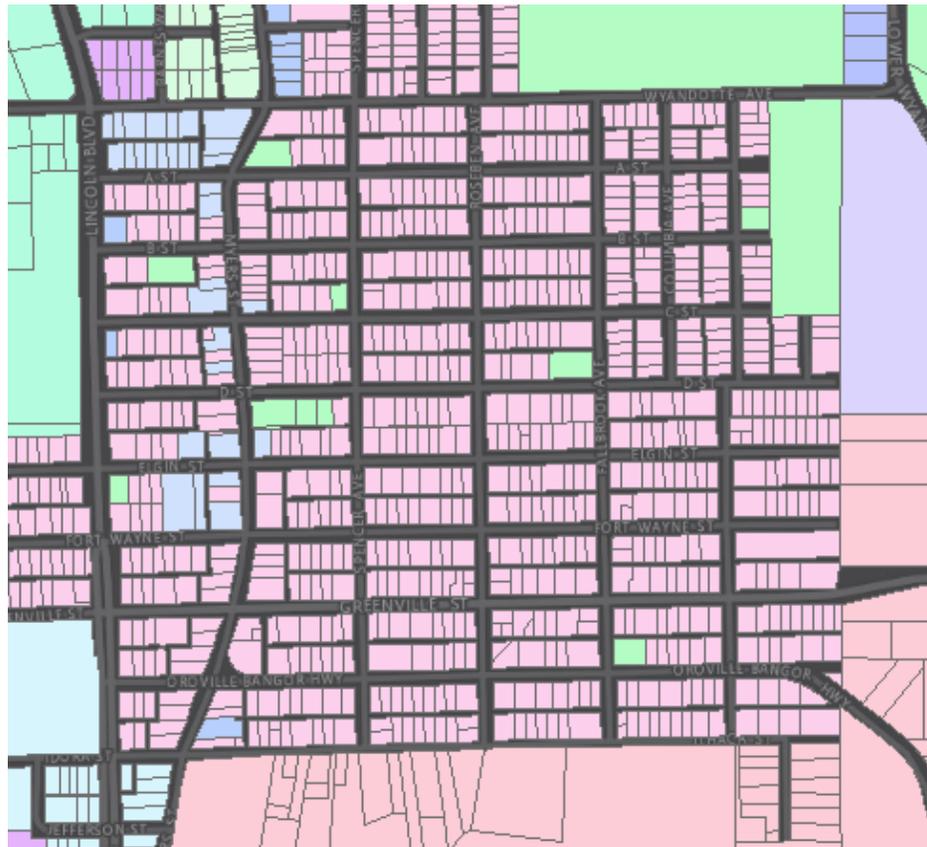


Figure 3.10: Southside Oroville Zoning Map

- *Medium Low Density Residential (R-2):* According to Oroville’s municipal code, the intent of this zone is to, “provide living areas within the city where development provides for medium-density concentrations of dwelling units in varying housing types and styles.”

-
- *Public or Quasi-Public Facilities (PQ)*: “The zoning in this district is designed for the accommodation of governmental, public, public utility and educational facilities.”
 - *Limited Commercial (C-1)*: According to Oroville’s municipal code, the intent of this zone is to, “provide commercial areas within the city where less-intensive retail sales and service activities may be accommodated.”

Oroville’s 2030 General Plan lays out how the city wants growth and development to happen. The city has made clear that all new development should adhere to Smart Growth and New Urbanism approaches. This means, on a neighborhood scale, that there need to be open spaces, pedestrian-friendly paths, public-transit along corridors, and fine grain (at least finer than existing) housing opportunities and mixed use zoning.

While the alley revitalization plan may not have much impact on future housing types, it does work hand-in-hand with neighborhood connectivity, multi-modes of transportation and offers some great opportunities for “High Quality Development” as described in section 4-3 of the General Plan.

When addressing the residential alleys of South Oroville, it is important to consider Policy P4.5 on page 4-22 in the General Plan, as it states that garages may not dominate the front of the block. The policy goes on to suggest some solutions, including “...locating garages towards the back of properties, constructing alleys, and placing the garages along the alleys...” In order for residents to abide by the policy, the alleys must maintain vehicle access, as well as gate and/or garage door access. It may be helpful for the City to update this policy to clarify that garages are not appropriate along alleys, particularly where alleyways have been greened or are otherwise in public use.

Summary - Southside

Southside is a unique site because of its new city status. This opens the door for easy-to-reach opportunities and the ability to have a more dramatic impact with fewer resources. During this transition some regulations and standards may not be enforced in order to make the change feel less intrusive to the residents. However, any changes that are made should/shall fall in line with the vision set forth in the 2030 General Plan. The alley revitalization program aims to hit that mark through form, function and efficiency.

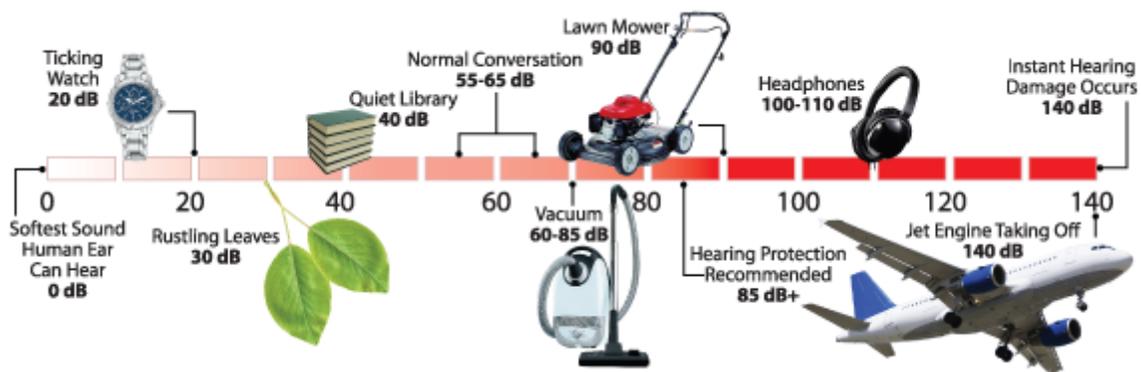
3.5 Aesthetics and Experiential Site Analysis

3.5.1 Site Inventory

Air Quality and Noise

Air quality doesn't appear to be a large contributing factor to this site's characteristics since the air quality for the area is generally suitable. The AirNow Air Quality Index website tracks real time data of the air quality for a site's area. This useful tool can be found on the Environmental Protection Agency website and is managed by the Butte County Air Quality Management District. Rank for air quality ranges sequentially from Good (the best ranking), to Moderate, USG (Unhealthy for Sensitive Groups), Unhealthy, Very Unhealthy, and Hazardous. Oroville itself does not have any data on any given day (despite there being an Oroville section on the website) so the data collected is from the Chico air quality index. The Chico index on most days gives an air quality rating of "Good". Air Quality is determined by three different factors: Ozone and two Particulate measures (PM 10 and PM 2.5). The CityData.com website indicates a breakdown of population demographics with the air quality for all sections of the city. The Miners Alley Loop appears to have an air quality index of 37.78 from 2000-2013. This seems it would be a "Good" level on the California Air Quality Index since the current conditions on AirNow are level 37 and Good.

Noise levels in Miners Alley may be of concern since our team is trying to increase the amount of activity in and around the Oroville alleyway. If music venues come to the Miners Alley Brewing Company area then loudspeakers may be present. As discussed earlier, this may be a welcome addition for the business owners in the area because they will have more people drift towards their establishments. Current noise level appears to be at the normal conversation level with a possibility of the sound of a few cars. This range would be about 40-70 decibels, but we did not collect noise level data at the site.



Visual Quality

Currently there are a few small murals dispersed among the walls of Miners Alley. The murals appear aged and in need of updating. We suggest art installations that complement the existing historical characteristics of Oroville's Downtown yet, bring a modern industrial element to the area. The juxtaposition of modern and historic traits will create a visually stimulating and inviting environment that celebrates the rich history of Oroville. In order to avoid damaging the bricks of the historic buildings by applying paint directly on the brick we suggest hanging large canvases by a suspension system, featuring the art of local artists. The canvases can be featured on a rotational basis. Changing the art present in the alleys intermittently will generate interest in returning to the area. Cities that host similar programs, such as Baltimore, Maryland, allow the art to be sold with fifty percent of the profit benefitting the city and the continuation of the program and the remaining fifty percent profiting the artist. Featuring welded metal art pieces created by the near-by Butte College welding program would also highlight the skill and educational opportunity present in the area while fitting into the industrial motif.

Lack of lighting in the Miners Alley area creates perceived risk and makes evening activities impractical. Hanging overhead lighting throughout the alley would make the alley more inviting, increase the perception of safety and allow for the necessary visibility in order to host evening activities in the alley.

Vertical gardens and other forms of greening would provide a welcoming and eco-friendly environment. Vertical gardens take up very little space and, therefore, would not impede the necessary vehicular access to the alley. Planting vertical gardens on exterior walls of buildings is not only visually pleasing, it creates insulation. The insulation provided actually increases the energy efficiency of the buildings.

Visibility and Views



The manner in which the structures in the Downtown Oroville area are situated coupled with the relatively consistent height of those structures results in very few issues with visibility or obstruction of views. Very little signage is currently present within Miners Alley. In order to prevent visual pollution that may occur with the anticipated increase of activity, it is necessary to limit the advertising and signage space along the route. Creating parameters regarding size, type and acceptable color options for signage will ensure that the area does not become cluttered. The designation of a specific theme and color palette for all new structures and all improvements to existing structures, including advertising pieces, will assist in creating an identity for the space and maintain the desired level of visibility. Restoration of dilapidated buildings and concealment of dumpsters in a manner that is consistent thematically with the desired aesthetic will also be necessary. Dumpsters can be placed into enclosures to keep garbage out of view.

The removal of invasive plants and litter should be mandated for the entire Miners Alley walking route. An “Adopt-an-Alley” program can be implemented in order to encourage community pride and involvement in the project. Organizations or groups that adopt a portion of the route will be responsible for regular litter removal and weed/invasive plant removal of that designated section. In order to give credit, signs should be placed along the route communicating to the public the parties responsible for the upkeep of the area.

Hazards

According to the *Neighborhood Scout* website, the City Center feels the least safe out of all the zones analyzed in Oroville. Further data shows that an Oroville resident has a substantially higher (1 in 16) chance of being a victim of property crime compared to the 1 in 41 chance in California. Crime rates are also higher than the national and California average but do not seem to be as extreme as the property theft rates.

With property theft being prominent in Oroville, and if the City Center feels unsafe, then bringing more activity to the area through our project should decrease these rates. If there are more eyes on the street and opportunities given for natural surveillance through alley improvements then it should be less likely that these crimes will occur. Lighting the area and opening the alley up in more areas will allow people to see more, deterring potential criminals from committing the act in the first place.

According to City Data (<http://www.city-data.com/city/Oroville-California.html>), “Oroville City Center has a 15.5 percent vacancy rate, which is well above average compared to other U.S. neighborhoods (higher than 75.3 percent of American neighborhoods). Most vacant housing here is vacant year round.” The vacancies and limited population in the downtown area may cause the crime rates to appear to be higher in this area as compared to the surrounding area, due to the fact that crime rates are calculated per capita.

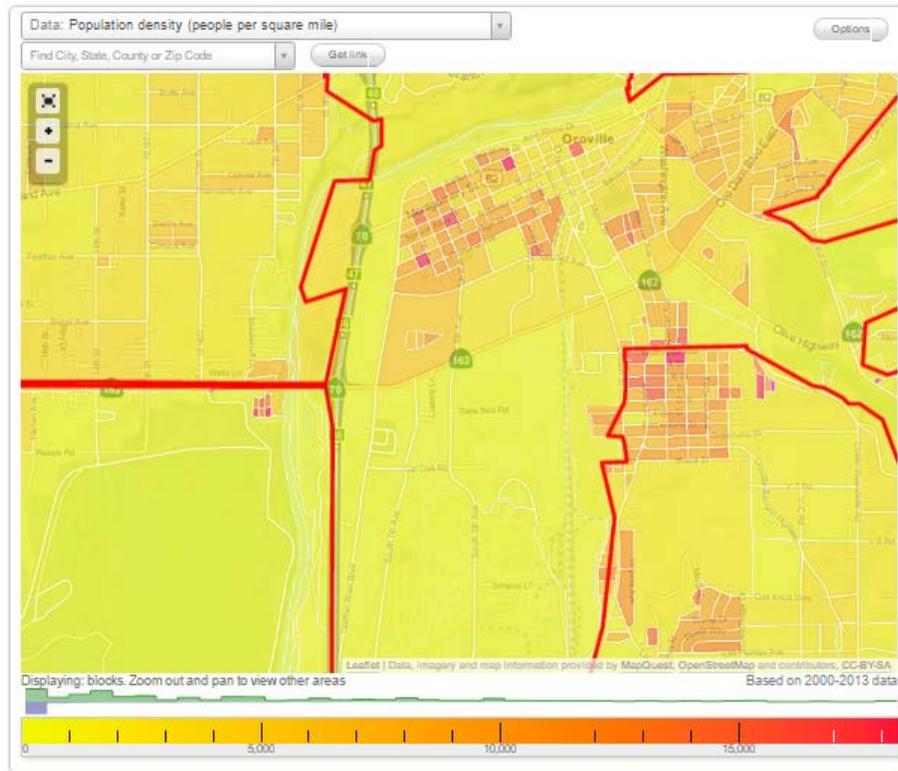
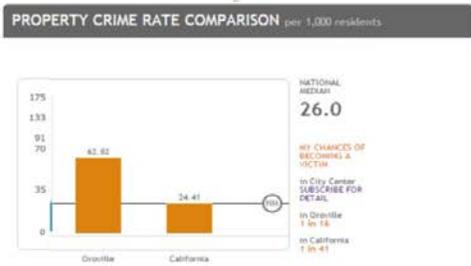
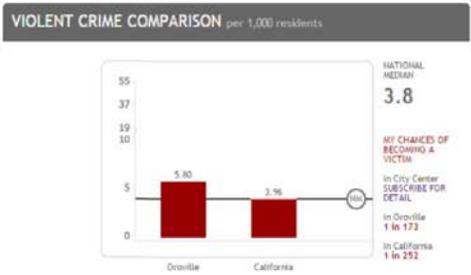


Figure 3.11: Oroville Population Density Map

Oroville Crime Rates



*source: <http://www.neighborhoodscout.com/ca/oroville/city-center/#crime>

Figure 3.12: Crime Comparison Rates

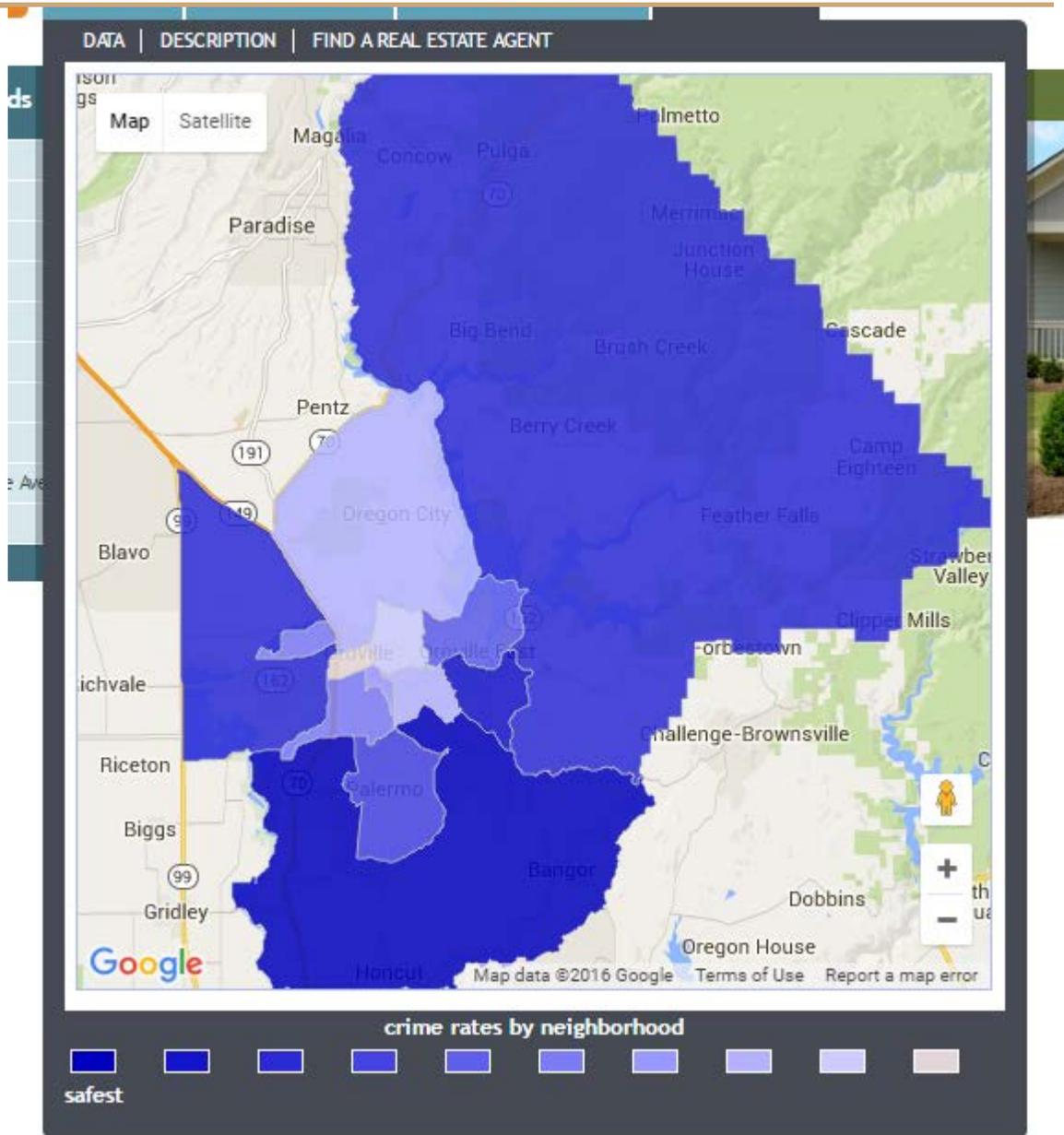


Figure 3.13: Crime Rates in the Oroville Area (Source: <http://www.neighborhoodscout.com/ca/oroville/crime/>)

Southside Alleys

The most commonly expressed concern of the residents of Southside Oroville is the lack of proper lighting in the alleys that connect a large portion of the 819 parcels that comprise the recently annexed area. We propose that alley

lighting be installed below the fence line so as to create visibility in the alleys without disturbing residents of the adjacent homes.

The most immediate need for attention in the Southside alleys may be the state of the fences that abut the alleys. Many of the fences are currently in a state of disrepair, which is creating a safety issue for both those walking along the alleys and those residing in the adjacent homes. We propose that the City consider providing funding to property owners in Southside to repair fences that fall into a state of disrepair, as determined by the City, to be repaired or replaced with previously approved materials. This will improve the visual quality and safety of the alleys.



Costa-Ontario Alley in Southside

3.6 Historic and Cultural Resources Analysis and Site History



One of the earliest photographs taken of Oroville in 1854 shows Myers Street before construction of a water flume and canal which brought new life to the partially abandoned mining camp.

Myers Street in 1854 (Source: J. Lenhoff, Images of America: Oroville, California)

3.6.1 Site Inventory

Historic and Cultural Resources

The following historic resources in Downtown Oroville have been listed in the National Register of Historic Places and the California Register of Historic Resources. Number 10 on the list is the Old Oroville Commercial District, which consists of 16 landmark structures within a designated historic district in Downtown Oroville. This listed historic district lies within the Downtown Oroville “Historic Area” recognized in the Oroville Municipal Code. The 16 historic buildings in the Old Oroville Commercial District comprise the largest remaining concentration of commercial buildings dating from 1856-1912 period.

Downtown Oroville Structures Listed on the National Register

1. State Theatre^[1]_{SEP}
2. Governor Perkins Building (1864 Montgomery)^[1]_{SEP}
3. Gardella Reece Building (1877 Montgomery)^[1]_{SEP}

4. Fong Lee Company Building (1215 Lincoln)
5. Hendee and Gaskill Building
6. Oroville Chinese Temple and Museum
7. 1850 Montgomery Street
8. 1858 Montgomery Street
9. 1346 Myers Street
10. Old Oroville Commercial District (16 structures)

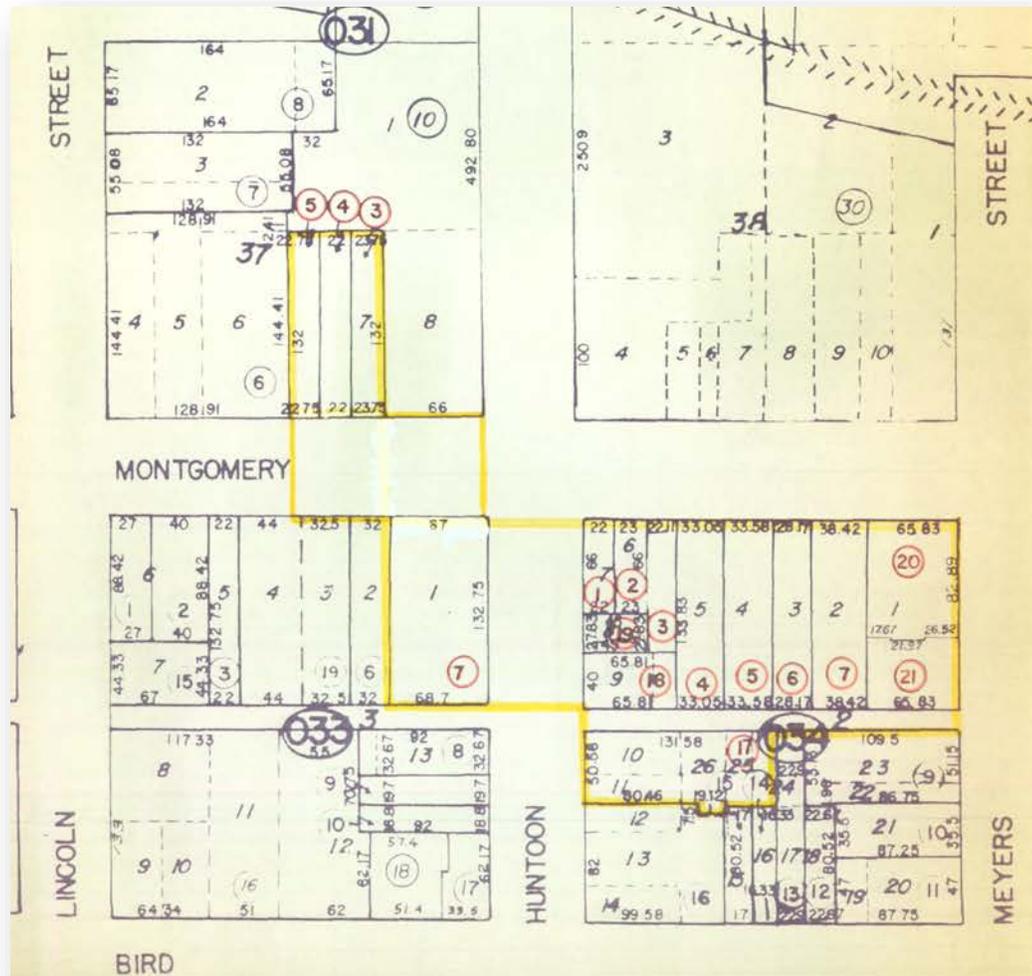


Figure 3.14: Old Oroville Commercial District (Source: National Register of Historic Places)

Old Oroville Commercial District

The Old Oroville Commercial District is listed on the National Register, and consists of 16 landmark buildings.

1. 1850 Montgomery Street (north side of Montgomery Street)
2. 1858 Montgomery Street (north side of Montgomery Street)
3. 1864 Montgomery Street (north side of Montgomery Street)
4. Gardella-Reece Building (1877 and 1887 Montgomery Street; 1328, 1330, 1332, 1340 Huntoon Street) Date: circa 1911
5. Golden Gate or Hacker Building (1911 Montgomery Street) Date: 1856
6. Toy-Fogg Building (1919 Montgomery Street) Date: First story ca. 1857; second story 1900
7. Brock Building (1925 Montgomery Street) Date: 1858. A one-story, brick building with iron doors off of the rear courtyard
8. Scruggs and Meador Building (1933 Montgomery Street) – Circa 1859. Due to 1975 earthquake damage, most ornamental brickwork was removed from the rear (south) wall.
9. Goldstein Building (1941 and 1949 Montgomery Street) Date: circa 1859
10. Kusel Building (1955 Montgomery Street) Date: 1878. Iron doors on the rear (south) wall
11. Freisleben-Howard Building (1963 and 1967 Montgomery Street) Date: 1878. A portion of the rear brick wall was replaced after 1975 earthquake.
12. Washington Block Building (1975-1985 Montgomery Street) Date: 1856 (first story)
13. Gem Saloon (1337 Huntoon Street) Date: circa 1859. Associated with legendary outlaw Black Bart. Due to 1975 earthquake damage, the rear brick wall was replaced with reinforced concrete down to below the second floor.
14. Hendee and Gaskill Building (1341 and 1347 Huntoon Street) Date: circa 1859
15. Store (1346 and 1348 Myers Street) Date: circa 1858
16. Gray-Nurse Hardware Building (1359 Huntoon Street) Date: First story circa 1875. Two-story brick building, original iron doors and brickwork on wall fronting Miners Alley



Figure 3.15: Landmark Historic Buildings with Walls Facing Miners Alley

(Note: Photo does not identify all listed historic buildings along Miners Alley or in the historic district)



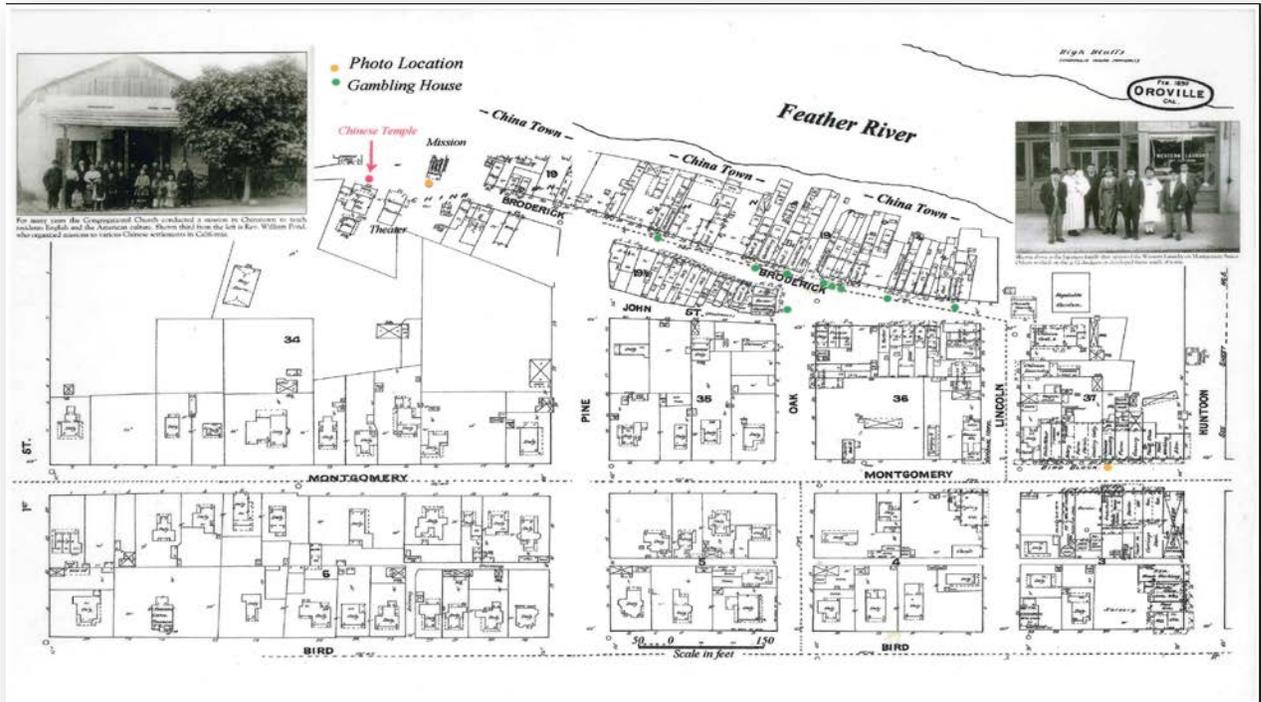
Miners Alley Brickwork and Doorway Features (Scruggs and Meador Building)

Thirteen of the landmark buildings in the Historic District have walls that face Miners Alley (**Figure 3.15**, above).

The character-defining historic features of the buildings comprising the Old Oroville Commercial District, which make those buildings eligible for listing are identified in the National Register nomination form. These features include original brick construction, and in some cases original brick walls and iron doors facing Miners Alley. However, the National Register listing information also indicates that portions of the historic brick walls facing Miners Alley were removed after the 1975 earthquake, including portions of the Miners Alley walls of the Scruggs and Meador Building (1933 Montgomery Street), the Freisleben-Howard Building (1963 and 1967 Montgomery Street), and the Gem Saloon (1337 Huntoon Street). The iron doors indicate that a key building objective of the period was fireproofing.

Miners Alley History

Historic Miners Alley is perhaps one of the most colorful thoroughfares in Western history. Oroville was established at the head of the Feather River to serve miners during the Gold Rush. After discovery of gold at Bidwell's Bar, thousands of prospectors flocked to the area. According to contemporary accounts, during the 19th century the streets of Oroville were like those of a great city, crowded night and day. Hotels and saloons lining Montgomery Street had basement-level dance halls and lobbies on Miners Alley as well as on Montgomery Street. As a result, Miners Alley was a busy social setting during this period and was known as a hub of high living and "general rascality" through the latter half of the 19th century and into the early 20th century. Six of the buildings in the Old Oroville Commercial District were saloons during the Gold Rush period. The Old Oroville Commercial District is also associated with a Governor of California (Governor Perkins, who gave the Perkins Building to the City), Wendell Hammon (a gold-dredger inventor), and even future President Herbert Hoover (who had a previous career as a gold-mining engineer).



Historic Map of Downtown Oroville (Source: Arts, Culture and Entertainment District Report, City of Oroville)

3.6.2 Site Analysis: Constraints and Opportunities

Miners Alley Constraints

As required by City standards for the Downtown Historic Overlay (DH-O) district and the “Historic Area” (Oroville Municipal Code Figure 17.44.040), and under the California Environmental Quality Act (CEQA) and other applicable laws and regulations, it will be important to evaluate the historic character and integrity of the walls of listed buildings facing onto Miners Alley before implementing any changes or alterations to these walls. The *Secretary of the Interior’s Standards for the Treatment of Historic Properties* are a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations. The associated *Guidelines* offer general design and technical recommendations to assist in applying the *Standards* to a specific property. Together, they provide a framework and guidance for ensuring that work on, or changes to, a historic property are consistent with its historic character.

The *Standards and Guidelines* can be applied to historic properties of all types, materials, construction, sizes, and use. They include both the exterior and the interior and extend to a property’s landscape features, site, environment, as

well as related new construction. Federal agencies use the *Standards and Guidelines* in carrying out their historic preservation responsibilities. State and local officials use them in reviewing both Federal and nonfederal rehabilitation proposals. Historic district and planning commissions across the country use the *Standards and Guidelines* to guide their design review processes. The *Standards* offer four distinct approaches to the treatment of historic properties—preservation, rehabilitation, restoration, and reconstruction -- with *Guidelines* for each.

According to the California State Office of Historic Preservation, a project that has been determined to conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* can generally be considered to be a project that will not cause a significant impact to its historic character. In fact, in most cases if a project meets the *Secretary of Interior's Standards for the Treatment of Historic Properties* it can be considered categorically exempt from the California Environmental Quality Act (CEQA) in terms of historical impacts. The City of Oroville also has a historic advisory commission, which is charged with the responsibility of oversight and monitoring to ensure that building, remodeling, rehabilitation, or alteration of structures within the Old Oroville Historic District is consistent with a “turn of the century” theme.

Temporary art or hanging installations, or features attached to the exterior of the historic structures lining Miners Alley in ways that do not permanently impact, alter or degrade their historic attributes should not affect their historic significance. Any treatments of the walls, doors, or windows of historic structures lining Miners Alley should be consistent with, and should not impact, their historic integrity, and should be completed in light of a recent evaluation of the historic resource.

Because artists, visitors, and others from outside the Oroville area will be invited to participate in arts, culture, and entertainment activities in Miners Alley, we recommend that the City of Oroville provide information about Miners Alley's historic features, and associated requirements for appropriate treatment, in its outreach and advertising about Miners Alley activities, focusing on artists or others who would be creating arts or installing equipment in the alley. The City's website, social media, or other outreach media could be used to convey this information.

Miners Alley Opportunities

According to the National Trust for Historic Preservation, heritage tourism is an attractive economic revitalization strategy, especially as studies have consistently shown that heritage travelers stay longer and spend more money than other kinds of travelers. As an added bonus, a good heritage tourism program improves the quality of life for residents as well as serving visitors.

Further, Millennials are also known to embrace the arts, culture, history, and entertainment, particularly where such

events are accessible through social media and other online tools. They also enjoy preserving and inhabiting old structures while adapting them to contemporary uses. As noted in a 2015 article in the *Huffington Post*, “Successes in cities such as Buffalo, Austin, and Washington D.C. are thanks in part to mixed-use developments that fulfill the millennial search for a particular urban grittiness that looks old but runs like new.... Millennials expect a certain level of efficiency and expediency.” We therefore recommend that restoration and use of Miners Alley feature innovation, arts, and new technologies, and be accompanied by the provision of seamless Wi-fi coverage during use hours and events.

Information Sources

California Office of Historic Preservation. N.d. *Technical Assistance Series #1:*

California Environmental Quality Act (CEQA) and Historical Resources

<http://www.sohosandiego.org/links/ceqa.pdf>

Huffington Post. 2015. Millennials, Nostalgia and Urban Preservation: Why We Clamor for a Past We Never Had. January 9, 2015. http://www.huffingtonpost.com/opedspace/millennials-nostalgia-and_b_6441254.html

Lenhoff, J. 2001. *Images of America: Oroville, CA*. Arcadia Publishing: Charleston, South Carolina.

3.7 Demographics, Market Demand and Existing Business Analysis

3.7.1 Site Inventory

In order to pull in an adult/Millennial demographic to Oroville, the City has commenced a plan to revitalize the Downtown Miners Alleyway and Southside alleys. *Millennials* as discussed in this report are the current population of 18-to-34-year-olds. Millennials have recently passed Baby Boomers as the largest generation in American history. The goal would be to start bringing in additional traffic/population flow, start to build more businesses, and boost the city’s economy in the Downtown area, in large part by increasing its attractiveness to Millennials. Oroville currently has a large young demographic, vacancy in the Downtown buildings, and a lack of appeal in the Downtown area to spend money or time there. This analysis will look into what current demographic, market demand, and existing business context is present.

Demographics

Oroville’s population consists of 15,546 people (US Census Bureau 2010). The majority of Oroville’s population is white; however, it is home to a diverse collection of ethnicities including Black, American Indian, Asian, Pacific Islander, and Hispanic Origin (shown in table below). Historically, the Chinese community was a dominant ethnicity

in Oroville; in fact, it constituted the second-largest community of Chinese people north of Sacramento. Many are believed to have come to the area after the completion of the transcontinental railroad.

More than 300,000 people live within 30 minutes of Oroville. The City of Oroville wants activities in Downtown Oroville, including Miners Alley, to attract these local residents and visitors from further away, focusing on a younger demographic. Currently, 32.9 percent of the City’s population is 20-34 years old. In 2010, 69.9 percent of Oroville’s population was 18 years and older. Moreover, the 5-14 year old age group is the most dominant, with 7,154 persons in the Retail Market Area. Overall, the median age in Oroville is 31.7 years of age. If the City markets retail to these young demographics, then it will be able to keep those age groups interested in spending their time and money in the Downtown area.

White	10,613
Black	572
American Indian	583
Asian	1,170
Pacific Islander	41

Tables 3.1 and 3.2: Population by Ethnicity and Age in the City of Oroville (Source: City of Oroville Fact Sheet)

Age	City of Oroville	Greater Oroville	Retail Market Area	30-Mile Radius
0 - 4	1,268	3,401	3,610	22,318
5 - 14	2,042	6,692	7,154	41,942
15 - 19	1,163	3,788	4,056	26,556
20 - 24	1,242	3,287	3,488	32,613
25 - 34	1,864	5,419	5,779	42,944
35 - 44	1,704	5,549	6,000	38,623
45 - 54	1,889	7,269	7,970	45,670
55 - 64	1,434	6,937	7,726	38,178
65 - 74	889	4,545	5,068	22,837
75 - 84	783	3,192	3,456	16,378
85+	362	1,306	1,393	7,975

Market Demand

According to the City’s *Arts, Culture & Entertainment (AC&E) District* report (2013), there is a large potential for future development in Downtown Oroville. The Downtown area currently suffers from low retail sales, low real estate values, and low pedestrian activity. On top of this, there are many vacant spaces in the Downtown area (up to 25,000 square feet of retail space). Despite these issues, there is a lot of potential demand to be captured that can breathe some life back in Oroville’s beautiful downtown area.

The AC&E report included a market analysis to estimate potential future demand. The results showed that over the next 20 years, in the Downtown area, there is a potential real estate market to attract 200 multifamily residential units; up to 19,000 square feet of retail space; up to 55,000 square feet of office space; approximately 6,000 square feet of visual arts facilities; and a large, central open space that could act as a gathering space for special events. This data shows that there is demand for various types of retail and restaurant businesses to redevelop in the downtown area.

Existing Businesses

The City of Oroville promotes prime development opportunities for retail throughout Oroville. On the City's official website there is a 'Doing Business' tab that is specifically aimed towards building business in Oroville. The website also has established programs to enhance the local economy:

- Business Resources
- Small Business Loan Program
- Business Technical Assistance Program
- Oroville Enterprise Zone
- Recycling Market Development Zone Program (RMDZ)
- Small Business Development Center (General Information)

Currently there are 1,053 firms in Oroville; of these the majority are male-owned. Retail trade brings in 41 percent of the City's annual income, while other businesses bring in less than 20 percent.

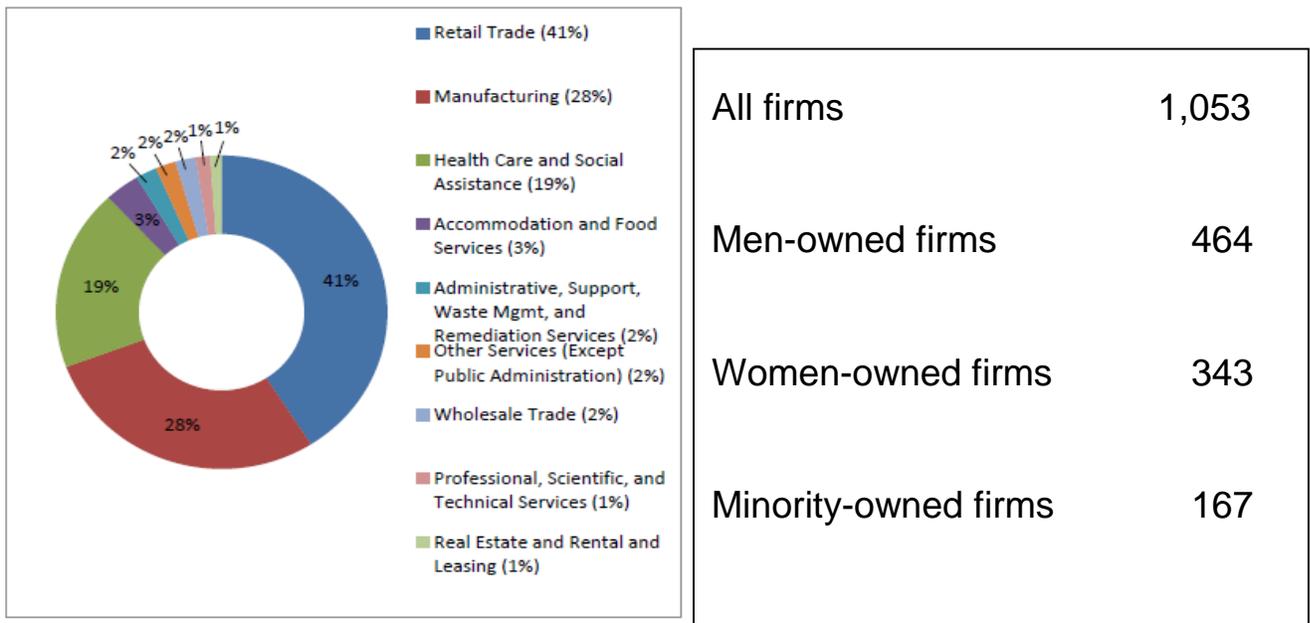


Figure 3.16: (left) Percentage of Income Generated within Oroville by Economic Sector. **Table 3.3:** (right) Business Ownership in Oroville.

Table 3.4 below shows taxable sales leakage in the Oroville area (i.e., the comparison of supply versus demand for retail products). This is calculated by dividing actual sales by potential sales. Oroville appears to have a leakage of restaurant sales, particularly restaurants serving alcohol. *Leakage* simply means that demand for a product exists but is not being captured by retail or service outlets within the City’s jurisdiction. This unmet demand suggests that the community could support additional outlets for this type of business. This shows opportunity for Oroville’s restaurant businesses, particularly those serving alcohol. Overall, the restaurant business, including restaurants with and without alcohol, could bring in \$14,873,484 more annually than it presently does. As far as those businesses that have a surplus, they are capturing local market plus attracting non-local shoppers in the community.

Table 3.4: Taxable Retail Sales & Leakage in the City of Oroville Market Area - 2006

Retail Sector	Potential Taxable Sales	Actual Taxable Sales	Taxable Sales Leakage (-) or Surplus (+)¹
Apparel stores	\$ 17,768,817	\$ 2,542,900	- \$ 15,225,917
Gifts, art goods, and novelties	\$ 1,865,751	\$ 480,800	- \$ 1,384,951
Household and home furnishings	\$ 11,785,477	\$ 2,175,500	- \$ 9,609,977
Household appliance stores	\$ 4,414,157	\$ 4,636,800	+ \$ 222,643
Second-hand merchandise	\$ 547,550	\$ 402,700	- \$ 144,850
General merchandise stores	\$ 50,189,909	\$ 53,362,500	+ \$ 3,172,591
Drug stores	\$ 6,409,841	\$ 7,080,100	+ \$ 670,259
Sporting goods	\$ 3,779,070	\$ 3,112,600	- \$ 666,470
Jewelry stores	\$ 2,369,227	\$ 1,328,900	- \$ 1,040,327
Farm and garden supply stores	\$ 2,781,386	\$ 642,400	- \$ 2,138,986
Restaurants w/ no alcohol	\$ 20,732,718	\$ 20,418,100	- \$ 314,618
Restaurants w/ beer and wine	\$ 11,205,626	\$ 6,727,700	- \$ 4,477,926
Restaurants and drinking places w/ full bar	\$ 13,150,240	\$ 3,069,300	- \$ 10,080,940
Packaged liquor stores	\$ 2,354,042	\$ 2,130,600	- \$ 223,442
Automotive supplies and parts	\$ 5,607,204	\$ 10,425,500	+ \$ 4,818,296
Used motor vehicle dealers	\$ 6,599,188	\$ 2,633,100	- \$ 3,966,088
Service stations	\$ 39,873,690	\$ 53,532,900	+ \$ 13,659,210
Lumber and building materials	\$ 27,420,620	\$ 34,649,800	+ \$ 7,229,180
Hardware stores, paint, glass, and wallpaper	\$ 5,024,047	\$ 4,826,100	- \$ 197,947
<i>All other categories</i>	\$ 290,071,622	\$ 114,742,100	- \$ 175,329,522
<i>Total all outlets</i>	\$ 523,950,181	\$ 328,920,400	- \$ 195,029,781

Safety and Crime

The City of Oroville has a crime rate slightly more than double of the national average. In 2004, Oroville's crime averaged 9.84 incidents per 100 persons while the national average was 3.98 incidents per 100 persons. The majority of the crimes in Oroville are related to theft. 8.3 of the 9.84 incidents per 100 persons are vehicle thefts, larceny thefts, and burglaries. Theft could be a concern in the Downtown area if there is a lack of police presence and eyes-on-the-street from visitors.

Crime could be more of an issue in Miners Alley because of the relatively high level of property theft. According to the Neighborhood Scout website, the City Center feels the least safe out of all the zones analyzed. Further data shows that an Oroville resident has a 1 in 16 chance of being a victim of property crime compared to the 1 in 41 chance in California. Violent crime rates are also higher than the national and California average but do not seem to be as extreme as the property theft rates.

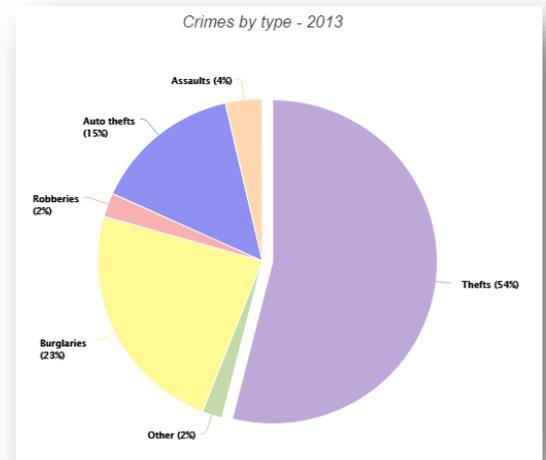


Figure 3.17: Crime by Type in Oroville
(Source: Neighborhood Scout)

With property theft being prominent in Oroville, and if the City Center feels unsafe, then bringing more activity to the area through alley revitalization should decrease these rates. If there are more eyes on the street and opportunities given for natural surveillance through alley improvements, then it should be less likely that these crimes will occur. Lighting the area and opening the alley up in more areas will allow people to see more, deterring potential criminals from committing the act in the first place.

According to City Data, “Oroville City Center has a 15.5 percent vacancy rate, which is well above average compared to other U.S. neighborhoods (higher than 75.3 percent of American neighborhoods). Most vacant housing here is vacant year round.” The vacancies and limited population in the Downtown area may contribute to crime rates appearing to be higher in the downtown area as compared to the surrounding area due to the fact that crime rates are calculated per capita.

3.7.2 Site Analysis: Constraints and Opportunities

Miners Alley and Walking Loop

Major constraints facing Miners Alley and the Walking Loop are economic issues. A poor economy has reduced the number of businesses in the Downtown area, leaving vacant spaces. Shopping in Downtown Oroville is not very convenient for all shopping needs as there are a limited number of businesses. Currently, the Downtown area fills a very niche role compared to the overall economic development in the entirety of Oroville. This location represents a unique period in Oroville’s history that cannot be replicated. Persons seeking to shop and dine at local businesses in a beautiful historic district could easily be drawn to Downtown Oroville.

Many opportunities are available to improve the Downtown area, though development may take some time. Downtown Oroville contains many beautiful, historic buildings located near the Feather River. This is a prime location

for a bustling district. Improving the experience of the downtown area will make the area more attractive to potential businesses that want to move in to vacant locations. According to the goals outlined in the *Arts, Culture and Entertainment District Report*, the City of Oroville wants to address the lack of an inviting, central focus point in the Downtown area that deters shoppers, tourists, and diners. Redeveloping the Miners Alley and the Walking Loop would be a great first step drawing more attention to Downtown Oroville from both visitors and potential businesses.

Beautification of Downtown Oroville may attract other businesses, while causing the current businesses to feel more invested. Downtown Oroville has very few restaurants; drawing in restaurants that serve alcohol can attract visitors while also increasing the nightlife of the area. Creating a buzzing environment will continue to bring in new businesses and visitors.

Southside Alleys

Myers Alley is adjacent to a block of local businesses. With the recent loss of Robertson's Pharmacy, one of the major businesses in the area, few businesses remain on the Myers Alley commercial block. Remaining businesses include a bar, a restaurant, a thrift store, and a liquor store. Myers Alley behind this commercial zone consists of mostly gravel and parking spaces and feels detached from the adjacent businesses. This row of businesses currently lacks the diverse selection of stores that would meet the full array of everyday needs of nearby residents.

Information Sources

City of Oroville. *Chinese Temple and Complex: Visit Another Culture*.

<http://www.cityoforoville.org/index.aspx?page=129>

City of Oroville. 2013. *Arts, Culture and Entertainment District Report*.

City Data <http://www.city-data.com/city/Oroville-California.html>

Chapter 4: Best Practices and Strategies

4.1 Alley Revitalization Typologies

Chapter 2, Model Alley Programs identifies two main types of alley retrofits: urbanized commercial alleys that have been re-programmed using art and activity as a catalyst to revitalize the area; and residential alleys that focus on greening as a way to provide and enhance the kinds of leisure and visual amenities appropriate to primarily residential areas.

4.2 Design Elements and Materials

Downtown Commercial Alleys

Commercial alley revitalization programs have been successfully implemented in cities around the world with frontier histories not unlike Oroville's. These cities have successfully updated their public images by incorporating their existing historic resources into an up-to-date "industrial-historic" aesthetic which includes preservation of the existing, authentic historic materials, and incorporating desirable amenities and up-to-the-moment technology within them. Successful aesthetic features include festive canopy-style rope lighting, café-style restaurant seating, decorative paving, and bollards or gates to protect pedestrians from vehicles. Innovative art installations allow alley aesthetic features to be updated frequently, and activities such as art installations, music, or film festivals support ongoing public interest and repeat visits.

Residential Alleys

Alley greening efforts in cities such as Chicago, Seattle and Washington, D.C. have allowed communities to bring natural or naturalistic amenities into urban areas, including native plants and small urban habitats. Successful green alley designs incorporate permeable surfacing, seating near alley openings, and low-level lighting designed to make alleys more attractive and interesting, community-friendly and safer while still maintaining the privacy of adjoining residents.

4.3 Connectivity

Successful alley retrofits in both downtown and residential areas around the world connect to the larger environment, including community activities and events; retail and services; pedestrian, bicycle and transit systems; Wi-fi; and key community amenities such as cultural sites and waterfronts.

4.4 Key Examples from Model Programs

Fort Collins: Alley enhancements can substantially increase revenues of nearby retail. Festive lighting, seating nooks, special paving, and plantings in the alleys support these increased revenues. Design alleys with unique themes.

Perth Laneways: To attract people into the city after hours, transition from alley cafes during the day to bars at night. Focus on encouraging and supporting business development. Celebrate the unique setting. Consider the context, and create a people-friendly city that encourages cycling.

Melbourne Laneways: Lower barriers for arts, culture, and entertainment businesses and organizations. Provide a variety of seating protected from vehicular traffic.

Belden Place: Incorporate nearby shops and alleys; provide comfort in various kinds of weather. Keep alley clean and free of trash.

Greeley Art Alley: Small budgets can create big changes. Pay respect to old times but move ahead with new ones. Involve community members through “Adopt-An-Alley” programs and in the making of art (community “paint-by-numbers”). Work with utility and service providers to ensure their facilities are incorporated. Respect historic materials.

Los Angeles Art Alleys: Art can transform urban spaces. Even the most unpleasant features of an alley can be transformed through art and inexpensive techniques such as wallpapering waste receptacles. Tap into available artistic talent from the local to the international levels. Use social media to promote public interest and excitement.

Chicago Green Alleys: Substituting permeable pavements can allow up to 80 percent of precipitation to percolate. Use dark-sky compliant lighting with white bulbs.

Mathieu Court, Richmond: On long residential blocks with narrow alleys, it may make sense to concentrate seating areas at the ends of alleys.

Ballard Green Alleys: Alley naming, planting native species, creating ecological niches where feasible.

4.5 Keys to Alley Revitalization

Downtown Commercial Alleys

- **Address the business climate early in the process.** Focus on economic revitalization first. Support local businesses in the transition to an arts, culture, and entertainment context. Streamline permitting where feasible and appropriate to the context.
- **Feature cutting-edge, innovative, new art and ideas.** Change installations and arts exhibits regularly to encourage return visits. Feature cutting-edge technology as well.
- **Involve the community as much as possible to foster a sense of pride and ownership.** Incorporate “Adopt-An-Alley” programs, community-created art, collaborate with local colleges, universities, arts and cultural organizations.
- **Enhance uniqueness while celebrating diversity.** Each alley block can have its own theme; every block should be friendly to all user groups, although user groups can vary throughout the day.
- **Strive for 24-hour use.** 18 hours should be active use such as cafes and retail during the day, restaurants and nightlife at night. Culture can be featured all the time. Encourage on-site residential use all the time through mixed-use zoning, lofts, and live-work spaces. These provide natural surveillance and enhanced safety 24 hours a day.
- **Draw Use By Offering What Attracts People Most:**
 - Food
 - Seating/Tables
 - Activity/Events/Changing Installations (for return visitors)
 - Seasonal Comfort (Sun/Shade etc.)
 - Wi-Fi Connectivity
 - Art/Community Activities/Things to do/See
 - Cafes during the day; Restaurants at Night; Activity 18 Hours/Day and People Present 24 Hours/Day

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- **Promote and extend the walkable environment.** Millennials prefer walking and biking when possible. Make it easy, safe, and attractive to walk and bike by providing attractive, convenient, and safe facilities.
 - **Start with the future in mind.** Inclusive communities attract talented, creative people. Move toward an inclusive future that is attractive to all ages, incomes, perspectives, and ethnicities, and abilities: one that welcomes diversity.

Chapter 5: Proposed Program

5.1 Alley Design and Activities

Miners Alley

- **Celebrate Downtown Oroville’s uniqueness, but also its diverse history and context.** Develop Miners Alley into a separate, special place but also one that is fully integrated into the Downtown setting.
- **Feature cutting-edge, innovative ideas, events and installations; integrate them into the larger Downtown and change them regularly.** Cutting-edge art will be a key element in drawing local and new visitors to Miners Alley. Consider featuring other kinds of installations and events as well. For example, technical innovations such as Wattway solar panels, outdoor projections, live music, and movies in the alley. Integrate Miners Alley into larger community events that showcase the larger Downtown area and its unique features, such as music and film festivals with events held in multiple Downtown venues.
- **Update the aesthetic of Miners Alley and the historic Downtown Oroville image; consider a “industrial-historic” aesthetic.** Miners Alley and the Downtown Historic District are currently identified solely with a historic gold-mining image. Many cities, including Perth and Melbourne, Australia and Fort Collins, Colorado have successfully updated their historic image in order to be more attractive to Millennials and others. The City of Oroville should continue to preserve the historic integrity of the Historic Downtown Oroville District block of Miners Alley, which is listed on the National Register and is comprised largely of landmark historic buildings, while updating it with a more current image in ways that protect the integrity of its historic materials and features. In some portions of the alley, restoring historic walls and doors that have been removed could be explored, consistent with applicable standards for the preservation of these historic resources. All portions of Miners Alley can be updated to a more contemporary “industrial-historic” aesthetic that would better reflect the City’s broader history and more diverse cultures, and would be attractive to a broader set of people. To best celebrate this diversity, each alley segment can and should feature a unique physical character and visual identity.
- **Protect the seating and pedestrian areas of Miners Alley from the vehicular travel way.** Install attractive and visually compatible bollards between pedestrian walkways/seating areas and the vehicular travel way, to protect pedestrians and seating from vehicles. Concentrate seating and gathering areas in “niches” out of the Miners Alley vehicular travel way.

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- **Add greenery to Miners Alley where feasible.** To save space, consider vertical gardens or containers. Where feasible, larger planters can help manage stormwater from rooftops.
 - **Add lighting to attract attention, create ambience, and add safety.** Install overhead string or “festoon” lighting in Miners Alley, and historic-style wall-mounted lighting (similar to the Gray Nurse lighting) in others. Consider integrating lighting into the bollards placed between pedestrians and seating and the vehicle travelway.
 - **Create a sense of special character by installing visually distinctive pavement elements in Miners Alley: cobbles, or stamped or patterned paving.** To conserve funding, consider strips of distinctive paving rather than complete repaving of the alley with patterned materials, such as a center strip, tire strips, or patterned paving to distinguish pedestrian and seating. See **Section 5.6, Budget Estimates**, for comparisons of the estimated costs of several paving options. Where funding allows, continue paving patterns through the street crossings.
 - **Create a welcoming and attractive environment for outdoor dining, including restoring historic windows and doors opening onto the alley from adjacent restaurants.**
 - **Keep alleys clean, attractive, and odor-free.** Consolidate waste receptacles and conceal them away from restaurant seating areas. Allow owners to paint or construct locking enclosures using sturdy materials and designs consistent with the alley’s visual theme. **Sections 2.1.3, Melbourne Laneways** and **2.1.6, Los Angeles Art Alleys** provide examples of simple, low-cost treatments that help integrate dumpsters and trash receptacles into an art-oriented environment.
 - **Ensure that all businesses and organizations are aware of historic alley walls and features that should not be altered.** Post this information on the Miners Alley webpage.
 - **Plan for ongoing use despite seasonable variation.** Allow portable heaters, rain covers, and shade sails when approving encroachments for alley seating.
 - **Temporarily close alleys to traffic during special events.** Decorative gates to the alleys can be designed to close during events, blocking vehicular access while allowing pedestrians through. Thematic images designed into the gates can help connect each unique alley block to the surrounding streets, while controlling vehicular traffic and ensuring pedestrian safety during events. Removable, locking bollards are another option to close the ends of alleys during community events.
 - **Allow murals to be painted on non-historic walls only.**

- **To enliven historic walls alongside Miners Alley, consider alternatives to wall murals:**

- Canvas murals attached to alley walls. Consider a program similar to the one in Baltimore, Maryland where these art pieces are sold after exhibition, with revenues split between the artist and funds for continuation of the program.
- Installation in alleys that are not permanently fixed onto walls, including architectural projections, lightweight hangings, or ground-mounted installations.



Architectural Projection, Frankfurt, Germany 2008 (Left); Umbrella Canopy, Perth, Australia (right)

Below: Lightweight Hanging Art Installation



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- **Create an attractive, fenced and planted break area behind City Hall that will also serve as a visual amenity for Miners Alley.** Install attractive, visually permeable fencing around it to ensure that this area serves as a visual amenity to the alley.

Miners Alley Walking Loop

- **Install sidewalk bulb-outs and crosswalks to make walking safer.**
- **Use attractive, interesting techniques to enable wayfinding along the Walking Loop:**
 - Inset tiles
 - Inset star plaques modeled on the seismic ties on the Gray Nurse Building; these would carry an existing, historic Miners Alley visual theme throughout the Loop
 - Inset miners image
 - Gold stripe
 - Thematic container plantings

Southside Alleys

- **Focus seating and other features of interest near the ends of the alleys to ensure better visibility to these areas.**
- **Promote interest and a sense of ownership for Southside alleys by creating an alley naming program, installing signage, creating an “Adopt-an-Alley” program, and planting native plants to attract native birds and insects.** Create small-scale gardens and walkways in Southside alleys; install bird boxes or similar features. Use planter boxes where space is limited. Plaques or signage about the geology and soils underfoot can be introduced, leading to awareness of the historical significance of the relationship between Oroville and its surrounding natural resources.
- **Evaluate the site-specific feasibility of installing bioswales in Southside alleys to improve drainage.**
- **Install low-level lighting when greening Southside alleys.** Ensure that alley lighting is dark-sky compatible, and does not throw light or glare onto adjacent properties. Use white bulbs for more attractive results. Install lighting below fence line height in order to reduce disturbance to adjacent homes. Making alleys well-lit will improve their feeling of safety and augment public usage.

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- **Consider gravel base or interlocking pavers in Myers Alley**, which is expected to have higher use levels due to the adjacent commercial buildings. Alternately, the existing gravel base in Myers Alley could be re-compacted. Permeable paving in the form of asphalt, concrete, or pavers in the Southside alleys will bolster groundwater infiltration, reduce storm water runoff, and provide an upgraded surface for walking.
 - **For the Mesa-Ontario alley, explore the opportunity to convert the two adjacent vacant lots into playgrounds or pocket parks**, creating more community space and amenities in these currently vacant lots.
 - **Install a map or other bicycle system wayfinding in Myers Alley, showing routes and paths leading to other sections of the City.** This would help promote bicycle use through the Southside alleys. Integrate the Southside alleys into the City’s bicycle system maps.
 - **Evaluate storm drainage intakes and correct as funding becomes available or other projects are implemented.**
 - **Grade and retrofit Southside alleys** to manage storm water while providing pedestrian, bicycle, and service access that is separate from the streets. Grading and leveling the uneven dirt surfaces of the Southside alleys will result in cleaner, better-looking, and more pedestrian-friendly “backstreets.”
 - **Give the alleys names and plant native species to create a sense of place, strengthen the quality of public space, and reduce vegetation maintenance.** Ensure that alleys are maintained and clean to invite people in and encourage public use.

5.2 Connectivity

Miners Alley

- **Keep Miners Alley pedestrian-only, but ensure that there are safe, bike-friendly facilities and connections nearby.** Bicycle-riding in Miners Alley could conflict with pedestrians and other uses, and is not recommended. However, Miners Alley transportation priorities and preferences differ from those of preceding generations. Many young people choose to replace driving with alternate transportation, including bicycling. Because Millennials are attracted a less driving-intensive lifestyle, the City should consider installing more bicycle racks in the downtown area, focusing on high-visibility, high-use locations close to Downtown bicycle lanes.

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- **Lower posted speeds to 25 mph on Lincoln and Huntoon, similar to other Downtown streets.** Return Lincoln and Huntoon Streets to two-way traffic consistent with the *Lincoln and Huntoon Restoration Plan*. Post bright-colored signage alerting drivers to Walking Loop crossings.
 - **Provide safe mid-block crossings between Miners Alley openings onto Downtown streets.** Install in-pavement lights at the Huntoon and Lincoln midblock crossings.
 - **Visually connect Miners Alley to Downtown streets and celebrate the alley's entrances as a way to draw people in.** Draw patrons in from the street with arrows, lighting, information and directional signage in nearby streets and sidewalks. Place visible signage in the alley and turn on festoon lighting so that passers-by are attracted to the area.
 - **Enable Wi-Fi connectivity throughout Miners Alley during use hours and community events. Individual businesses normally provide connectivity on their own premises.**
 - **Continue to implement the City's ADA Transition Plan in the Downtown area, including Miners Alley.**

Miners Alley Walking Loop

- **Install bulb-outs at crossings along the Walking Loop to enhance user safety and convenience.**

5.3 Potential Partners

- **Involve the community to enhance pride, community ownership, and involvement.** Use alleys for community arts, culture and entertainment events and school educational events. Institute a community-based alley-naming program for unnamed alleys, further enhancing community interest and involvement. Create strong and active partnerships with local businesses, property owners and community organizations:
 - Arts, Culture, and Entertainment Groups
 - Local Schools
 - Churches
 - Event Organizers
 - Rotary, Garden Club, and Other Community Organizations
 - Cultural Organizations

-
- Colleges and Universities
 - **Institute an “Adopt-An-Alley” Program.**
 - **Work with partners to advertise in high-profile areas.** Establish an online presence for Miners Alley and related activities. Advertise locally at the Forebay Aquatic Center and facilities serving Lake Oroville. Evaluate and implement advertising and outreach outside the Oroville area to draw more visitors to the area.
 - **Work with property owners and local waste management and utility companies** in order to obtain permission to paint, decorate, or change location of items associated with these services.
 - **Invite community members, as well as invited artists, to participate in creating some of the featured art and exhibitions.**

5.4 Budget Estimates

Miners Alley Paving

For the paving of Miner’s Alley, we have considered five different paving styles. Below are the costs and pictures of what it would cost per block of Miners Alley, with the alley roughly estimated at two hundred seventy-five (275) feet long and thirteen (13) feet wide. The prices provided are strictly based off of the cost of materials and do not include demolition or labor expenses.

1. All-Asphalt. An all-asphalt alleyway would cost approximately \$14,300 per block. This is the most cost-effective option for Miners Alley, but lacks the attractive appearance found in other commercial alleys that have been successfully revitalized.



2. Asphalt Pavement with Interlocking Center Strip. An asphalt pavement with a three (3) foot center strip made from interlocking pavers would cost approximately \$19,250 per block.



3. Asphalt Pavement with Cobbled Center Strip. An asphalt pavement with a three (3)-foot center strip made of cobble would cost approximately \$20,075 per block.



4. Asphalt Pavement with Patterned Center Strip. An asphalt pavement with a three (3)-foot center strip made of a single color and single pattern would cost approximately \$20,900 per block.



5. *Asphalt Pavement with a Patterned, Multi-Color Center Strip*. An asphalt pavement with a three (3) foot center made of a multicolor and complex pattern would cost approximately \$25,850 per block. This has the highest cost of all the options.



5.5 Funding Sources

The 2013 *Oroville Arts, Culture, and Entertainment District Report* and the 2015 *Oroville Area Urban Greening Plan* identify a number of funding sources that are available for revitalizing commercial districts or urban alley greening. These include:

Downtown Revitalization

- *National Endowment for the Arts (NEA) Grants (“Our Town”, etc.)*. A creative, place-making grants program. <https://www.arts.gov/national/our-town>
- *ArtPlace Grants*. The National Creative Place-Making Fund’s grant program. <http://www.artplaceamerica.org/our-work/national-creative-placemaking-fund/introduction>
- *Historic Preservation Tax Credits*. A 20 percent income tax credit is available for the rehabilitation of historic, income-producing buildings that are determined by the Secretary of the Interior, through the National Park Service, to be “certified historic structures.” The State Historic Preservation Offices and the National Park Service review the rehabilitation work to ensure that it complies with the Secretary’s *Standards for*

Rehabilitation. Tax benefits are also available for historic preservation easements.

<https://www.nps.gov/tps/tax-incentives.htm>

- *Caltrans Active Transportation Program (ATP).* The purpose of the ATP is to encourage increased use of active modes of transportation, including increasing the proportion of trips accomplished by biking and walking, and increasing safety and mobility for non-motorized users. <http://www.dot.ca.gov/hq/LocalPrograms/atp/>
- *Supplemental Benefits Fund (SBF).* The SBF is intended to support job creation, tourism and local recreation in the Feather River corridor. <http://www.cityofroville.org/index.aspx?page=380>

Other options for funding services, improvements, or activities include:

- *Joint public-private maintenance authority or BID/PID*
- *Lighting and landscaping assessment district.*
- *Business owners' participation in specific activities.*

Alley Greening

- *U.S. Department of Housing and Urban Development Community Development Block Grant Program.* Projects funded must meet specific criteria for benefitting low-income households, creating new jobs or accommodating specific business expansion or retention. http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs
- *Local Government Incentives.* These can include disposal fee waivers, vouchers or free disposal days. These encourage organizations and residents to conduct wholesale cleanups and reduce future dumping.
- *Supplemental Benefits Fund (SBF).* The SBF is intended to support job creation, tourism and local recreation in the Feather River corridor. However, the funds can be used outside the Feather River corridor as well. <http://www.cityofroville.org/index.aspx?page=380>

Chapter 6: Phasing Concept

6.1 Short-Term

Focus on the business environment first. The Perth laneways program indicates that, in implementing change in commercial areas, it is important to encourage and enable business to adapt and evolve in order to be successful in the envisioned future. For Perth, this meant reducing alcohol sales licensing fees in order to encourage the presence of those businesses in its laneways. The City of Oroville should evaluate its permitting and regulatory standards in order to ensure that there are no substantial barriers to achieving its vision for revitalizing Miners Alley and the Downtown area.

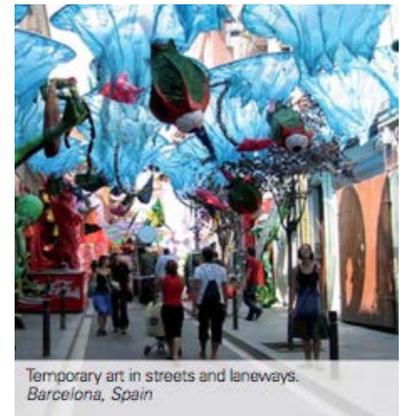
6.2 Long-Term

When upgrading pavement in Miners Alley, evaluate opportunities to simultaneously update infrastructure, including lighting, drainage and sanitary sewer.

The Larger Lesson: Continue to Create a Flexible, Welcoming, People-Friendly City

Oroville is making substantial progress toward creating an active, vital, and people-friendly Downtown. Continuing this progress will help ensure that a revitalized Oroville Downtown will appeal to future generations. We recommend the following key urban design principles, which are adapted from the work of Jan Gehl:

- *Celebrate the unique setting and connect it to the larger context.*
 - Oroville has a unique physiographic, historic and recreational setting. Making the Downtown area more connected to the rest of the city can create harmony in the setting to attract both visitors and future residents.
- *The Feather River waterfront could be a major feature of Downtown Oroville.*

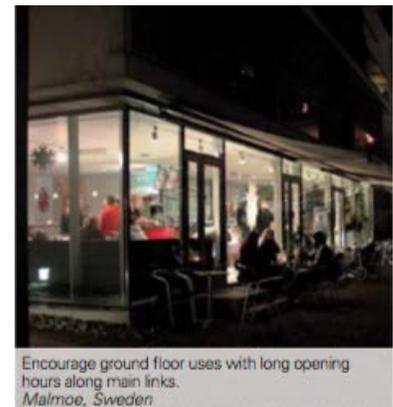


- Oroville’s Feather River waterfront should be developed into a major activity site. River-based activities should be given priority in this area.
- *Bring in more residents.*
 - Bringing in more residents to Oroville’s Downtown can ensure that there is 24-hour activity. Second-story space in the Downtown area could house more residents: enable this by allowing live-work spaces and lofts in the Downtown area.



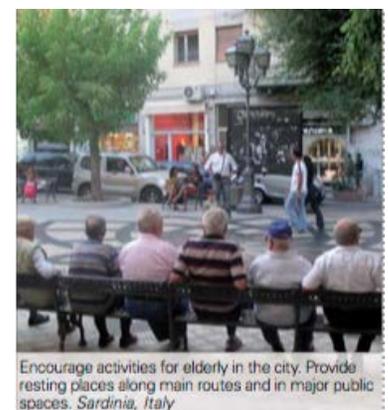
- *Continue to bring in more students.*
 - Students contribute diversity and intensity to a city. With the Oroville Inn being turned into student housing, this is a good step towards improving the Downtown area.
- *Create a diverse and vibrant 24-hour Downtown.*
 - Continue to revitalize Downtown Oroville as a diverse space with various activities to attract people with different interests at all times of the day, especially at night.

- *Continue to expand and refine the pedestrian-friendly city.*
 - Improving the pedestrian network between the Feather River, the Downtown district, and surrounding areas creates a more people-friendly space. The Miners Alley Walking Loop is an important step in this direction.



- *Create a fine city for cycling.*
 - Creating a city that is safe for cycling offers an additional mode of transportation that is healthy and attractive to Millennials, families, and many others, and is also a popular form of recreation. A safe bicycling network with street facilities and protected bike lanes will connect more people to the downtown area.

- *Create more invitations to Miners Alley and Downtown Oroville more widespread advertising and an online presence for Miners Alley activities.*



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with



Encourage evening activities e.g. bars and restaurants, cultural activities, events. Activate the public spaces in the evening. *Melbourne, Australia*



Recreative and cultural activities need to be strengthened in order to attract more people in the weekends. *Copenhagen, Denmark*



Create more activities and dedicated spaces for families and children in the city centre. Provide more playful city elements. *Bryant Park, New York*



Alley Café in Old Havana, Cuba



"The Belt" Alley, Detroit, Michigan